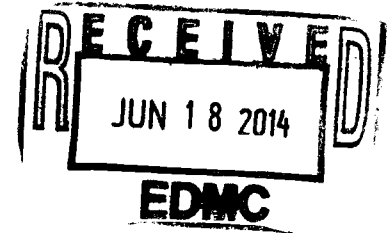




**Department of Energy**  
Richland Operations Office  
P.O. Box 550  
Richland, Washington 99352



~~JUN 10 2014~~

14-ESQ-0084

Mr. J. L. Boller  
U.S. Environmental Protection Agency  
Region 10  
1200 Sixth Avenue, Suite 900, AWT-122  
Seattle, Washington 98101

Dear Mr. Boller:

INFORMATION REQUESTED IN SUPPORT OF THE MAY 19 AND 20, 2014,  
U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA) TREATMENT, STORAGE, AND  
DISPOSAL (TSD) UNITS AND WASTE GENERATOR ACTIVITIES INSPECTIONS OF  
THE HANFORD FACILITY RESOURCE CONSERVATION AND RECOVERY ACT  
ACTIVITIES

On May 19 and 20, 2014, EPA along with the State of Washington, Department of Ecology conducted TSD and waste generator activity inspections at the 400 Area Waste Management Unit, Centralized Consolidation/Recycle Center, 242-A Evaporator, and Waste Sampling and Characterization Facility West Central Waste Complex (CWC). During the May 21, 2014, inspection post-briefing EPA requested the following:

- Copies of documents that were identified during the inspections as enumerated in the list provided by EPA.
- Response to information requests from EPA during the TSD and Waste Generator Activity inspections.

The documents requested by EPA have been placed into an electronic format on three compact discs, one for each contractor responsible for the units that were inspected. Each disc contains an index or table of files that are contained on the disc.

JUN 10 2014

Mr. J. L. Boller  
14-ESQ-0084

-2-

If you have any questions, please contact me, or your staff may contact Ed MacAlister, Director, Environmental, Safety, and Quality, on (509) 373-0462.

Sincerely,



Jeffrey A. Frey, Acting Assistant Manager  
for Safety and Environmental

ESQ:ACM

Enclosures

cc w/encls:

K. A. Conaway, Ecology  
M. K. Prescott, EC  
K. Schanilec, EPA Region 10  
Administrative Record, TSD: S-4-2, T-2-6  
Ecology NWP Library (CD)  
Environmental Portal, LMSI, A3-01  
HF Operating Record (J. K. Perry, MSA, H7-28)

cc w/o encls:

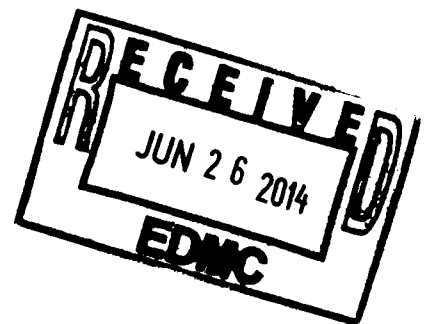
G. Bohnie, NPT  
R. Buck, Wanapum  
S. L. Dahl-Crumpler, Ecology  
R. H. Engelmann, CHPRC  
D. A. Faulk, EPA  
L. E. Gadbois, EPA  
S. Harris, CTUIR  
J. A. Hedges, Ecology  
S. Hudson, HAB  
R. Jim, YN  
K. McNeill, EPA Region 10  
K. Niles, ODOE  
D. Rowland, YN  
J. R. Seaver, CHPRC  
E. R. Skinnarland, Ecology

1226136

14-ESQ-0084

## **SECTION 1 OF 4**

**INFORMATION REQUESTED IN SUPPORT OF THE MAY 19 AND 20 2014 US  
ENVIRONMENTAL PROTECTION AGENCY (EPA) TREATMENT STORAGE AND  
DISPOSAL (TSD) UNITS AND WASTE GENERATOR ACTIVITIES INSPECTIONS OF  
THE HANFORD FACILITY RESOURCE CONSERVATION AND RECOVERY ACT  
ACTIVITIES**



**U.S. ENVIRONMENTAL PROTECTION AGENCY**  
**INSPECTION OF 400 AREA WMU, 440-PAD, AND MASF**  
**DOCUMENTS AND INFORMATION REQUEST**  
**MAY 21, 2014**  
**DOCUMENTS AND INFORMATION REQUEST TABLE**



**U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA)  
INSPECTION OF THE 400 AREA AT THE HANFORD SITE  
400 AREA WMU, 440-PAD, AND MASF  
DOCUMENTS AND INFORMATION REQUEST TABLE  
MAY 21, 2014**

<b>Inspection Request Number</b>	<b>Date of Inspection Request</b>	<b>EPA Document/Information Request</b>	<b>DOE/CHPRC Response to Document/Information Request</b>	<b>Number of Pages</b>
<b>400 Area Waste Management Unit - Interim Storage Area (ISA)</b>				
1	05/21/2014	Waste Inventory (SWITS Data) for all containers within the connex box	<p>Copies of the following "Solid Waste Information and Tracking System Container Listing Report" PINs for containers that are currently stored in the ISA:</p> <ul style="list-style-type: none"> <li>• 0016549</li> <li>• 0043409</li> <li>• 0044912</li> <li>• 0044929</li> <li>• 0044930</li> <li>• 0046664</li> <li>• 0046665</li> <li>• 0049499</li> <li>• 0055593</li> <li>• 0063472</li> <li>• CP-12-11-F</li> <li>• CP-12-12-F</li> <li>• CP-12-13-F</li> <li>• CP-12-14-F</li> <li>• CP-12-15-F</li> <li>• CP-12-16-F</li> <li>• CP-12-17-F</li> <li>• CP-12-18-F</li> <li>• CP-12-19-F</li> </ul>	<p>4</p> <p>4</p> <p>4</p> <p>4</p> <p>4</p> <p>4</p> <p>4</p> <p>4</p> <p>4</p> <p>4</p> <p>4</p> <p>4</p> <p>4</p> <p>4</p> <p>4</p> <p>4</p> <p>4</p> <p>4</p> <p>4</p>
2	05/21/2014	Waste Profiles (SWITS Data)	Copy of "400 Area WMU Waste Profile Sheet, "dated April 12, 2012.	4

**U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA)  
INSPECTION OF THE 400 AREA AT THE HANFORD SITE  
400 AREA WMU, 440-PAD, AND MASF  
DOCUMENTS AND INFORMATION REQUEST TABLE  
MAY 21, 2014**

<b>Inspection Request Number</b>	<b>Date of Inspection Request</b>	<b>EPA Document/Information Request</b>	<b>DOE/CHPRC Response to Document/Information Request</b>	<b>Number of Pages</b>
3	05/21/2014	Training Records (Individuals who perform the inspections)	<p>The following are the Training Plans and Completion Dates for individuals that perform the inspections (Nuclear Chemical Operators):</p> <ul style="list-style-type: none"> <li>• Tim R. Malley</li> <li>• Deborah S. Older</li> <li>• Jose L. Ramos</li> <li>• Michael R. Reid</li> <li>• William M. Wise.</li> </ul>	<p>4</p> <p>3</p> <p>4</p> <p>4</p> <p>4</p>
4	05/21/2014	Inspections Log (Weekly inspection sheets going back 1 year – May 2013 to May 19, 2014)	Copies of 2CP-SUR-F-05024 “Hanford Facility RCRA Permit 400 Area Waste Management Unit – Weekly Inspection Log for 400 Area Waste Management Units,” dated from May 7, 2013 through May 19, 2014.	56
5	05/21/2014	Building Emergency Plan	Copy of HNF-IP-0263-FFTF “Building Emergency Plan for Fast Flux Test Facility Property Protection Area,” Revision 23, dated October 20, 2013.	32
6	05/21/2014	Shipping Records for last two years	<i>There have been no shipments of waste too or from the ISA in the last two years.</i>	N/A
7	05/21/2014	Container PIN # 0016549 NaK drum – Inside container photographs and description of the how much NaK liquid is present in the container	Container PIN # 0016549 NaK Container location, open container, and NaK liquid quantity within container.	1
<b>400 Area Waste Management Unit - Fuel Storage Facility – Building 403 (FSF)</b>				
8	05/21/2014	Waste Inventory (SWITS Data) for both large boxes stored within the FSF.	<p>Copies of the following “Solid Waste Information and Tracking System Container Listing Report” PINs for containers that are currently stored in the FSF:</p> <ul style="list-style-type: none"> <li>• 23432-1</li> <li>• 23432-2.</li> </ul>	<p>4</p> <p>4</p>

**U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA)  
INSPECTION OF THE 400 AREA AT THE HANFORD SITE  
400 AREA WMU, 440-PAD, AND MASF  
DOCUMENTS AND INFORMATION REQUEST TABLE  
MAY 21, 2014**

<b>Inspection Request Number</b>	<b>Date of Inspection Request</b>	<b>EPA Document/Information Request</b>	<b>DOE/CHPRC Response to Document/Information Request</b>	<b>Number of Pages</b>
9	05/21/2014	Waste Profiles (SWITS Data)	Refer to response to Inspection Request Number 2.	N/A
10	05/21/2014	Training Records (Individuals who perform the inspections)	Refer to response to Inspection Request Number 3.	N/A
11	05/21/2014	Inspections Log (Weekly inspection sheets going back 1 year – May 2013 to May 19, 2014)	Refer to response to Inspection Request Number 4.  <i>Note: the FSF weekly inspection is on the same page as the ISA weekly inspection provided in Inspection Request Number 4.</i>	N/A
12	05/21/2014	Building Emergency Plan	Refer to response to Inspection Request Number 5.	N/A
13	05/21/2014	Shipping Records for last two years	<i>There have been no shipments of waste too or from the FSF in the last two years.</i>	N/A
<b>440 - Pad Satellite Accumulation Area (SAA)</b>				
14	05/21/2014	Waste Inventory Sheets for the two containers (PINs 0026112 and 0027876)	The following are the Waste Inventory Sheets for the containers located at the 440-Pad: <ul style="list-style-type: none"> <li>Waste Inventory Sheet, Container PIN 0026112, 55-Gallon Drum – Tritium Signs</li> <li>Waste Inventory Sheet, Container PIN 0027876, 61 liter Container – Aerosol Cans.</li> </ul>	2 2
<b>Maintenance and Storage Facility (MASF) – Building 437 SAA and Universal Waste Storage Area</b>				
15	05/21/2014	Training Records of the MASF Operations Manager	Training Plan for Michael A (Aaron) Young – MASF Operations Manager, as of May 28, 2014	5

**U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA)  
INSPECTION OF THE 400 AREA AT THE HANFORD SITE  
400 AREA WMU, 440-PAD, AND MASF  
DOCUMENTS AND INFORMATION REQUEST TABLE  
MAY 21, 2014**

<b>Inspection Request Number</b>	<b>Date of Inspection Request</b>	<b>EPA Document/Information Request</b>	<b>DOE/CHPRC Response to Document/Information Request</b>	<b>Number of Pages</b>
<b>Other Documents Requested During the Inspection</b>				
16	05/21/2014	Requested copy of letter from U.S. Department of Energy (DOE) to the Washington State Department of Ecology (Ecology), Subject: "Class 1 Modifications to the Hanford Facility Resources Conservation and Recovery Act Permit (Permit), Quarter Ending December 31, 2013," dated January 10, 2014.	Copy of letter from U.S. Department of Energy (DOE) to the Washington State Department of Ecology (Ecology), Subject: "Class 1 Modifications to the Hanford Facility Resources Conservation and Recovery Act Permit (Permit), Quarter Ending December 31, 2013," dated January 10, 2014.  <i>Note: The first section of this submitted HF RCRA Permit Class 1 Modification Package is the 400 Area WMU.</i>	43
17	05/21/2014	Requested copy of letter from DOE to Ecology, Subject: "Response to Washington State Department of Ecology (Ecology) Dangerous Waste Compliance Inspection at the Hanford 400 Area Dangerous Waste Management Unit Resources Conservation and Recovery Act (RCRA) Identification Number WA 7890008967 on September 19 and 20, 2011," dated August 5, 2013.	Copy of letter from DOE to Ecology, Subject: "Response to Washington State Department of Ecology (Ecology) Dangerous Waste Compliance Inspection at the Hanford 400 Area Dangerous Waste Management Unit Resources Conservation and Recovery Act (RCRA) Identification Number WA 7890008967 on September 19 and 20, 2011," dated August 5, 2013.	32

**U.S. ENVIRONMENTAL PROTECTION AGENCY**  
**INSPECTION OF 400 AREA WMU, 440-PAD, AND MASF**  
**DOCUMENTS AND INFORMATION REQUEST**  
**MAY 21, 2014**

**INSPECTION REQUEST NUMBER 1**

Copies of the "Solid Waste Information and Tracking System Container Listing Report" PINs for containers that are currently stored in the ISA.

## Solid Waste Information and Tracking System

SWIR310

## Container Listing Report

05/27/2014 11:23

for Package ID: 0016549

Page 1 of 4

Source Facility:

Location Facility:

Shipment #:

Package ID: 0016549	Secondary Pkg ID:	Accumulation Date: 06/24/2009
Waste Type: D LLW	Phys State Cd: S	Deadline Date: 09/21/2009
Sec Waste Type: LLW	UHC Determination:	Ship Date:
Encasement/HIC#:	UHC's Applicable:	TSD Receive Date:
Profile / Rev#: TBD - 00	NFPA < 93.3C:	TSD Accept Date:
WSRd / Rev #: -	Storage Category:	Disposal Date:
CCP Control?:		

Routine Status: 100 Non-Routine / Other

Container Type / Descr: DM / 55 GALLON	Container Empty Tare Wt. (kg): 24.0000
Container Volume (cu. meters): 0.2080	Waste Weight (kg): 123.0000
Labpack Flag: N	Container Gross Wt. (kg): 147.0000
Container Contents: 13 NAK PRESSURE TRANSDUCERS IN 55 GALLON STEEL DRUM	

SWO Comments:

Generator Information

Generating Company: CHPRC CH2M HILL PLATEAU REMEDIATION CO.	Generator ID: 0092501	Generator Group: FFTF
Source Facility: 4718	Generator: RJ SWAN	
Generator Comments: ISOTOPICS AND WEIGHTS ARE ESTIMATES. ADDITIONAL REVIEW AND CHARACTERIZATION WILL BE DONE PRIOR TO TRANSPORT. RJS 6/27/12. 400 AREA TSD PROFILE DEVELOPED FOR TSD ACCEPTANCE AT THE 400 AREA INTERIM STORAGE.AREA (ISA).		

Solid Waste Information and Tracking System

Container Listing Report

for Package ID: 0016549

Source Facility:

Location Facility:

Shipment #:

SWIR310

05/27/2014 11:23

Page 2 of 4

Hazardous Package Detail

Container Status: Full

Flashpoint: N/A

pH Value: >12.5

Subpart CC Flag: NA

DW Numbers: D001 D003

RCRA Reporting

ADWR Stream Description: Sodium Metal -

Designation Code: DW

Source Code: G19 Other one-time or intermittent process

Comment: Decommissioning and Deactivation

Form Code: W319 Other inorganic solids, specify in comments

Comment: Sodium Wetted Piping

Origin Code:

Residual Mgmt Method:

Comment:

Management Method:

Comment:

Certification Group:

Reportable CERCLA?:

Pre-2007 Reporting

Waste Stream:

Offsite TSD Waste Stream:

RCRA Designated Date:

PCB Package Detail:

PCB Type:

PCB Source Concentration (PPM):

PCB Subtype:

PCB Waste Weight (kg):

PCB Contents:

Removed from Service:

Solid Waste Information and Tracking System  
Container Listing Report

for Package ID: 0016549

Source Facility:

Location Facility:

Shipment #:

SWIR310

05/27/2014 11:23

Page 3 of 4

Radioactive Package Detail

Waste Category: WC1

Combustible Flag:

Exceeds ISB Limit: N

NRC Class: A

snm Waste?:

Shielding:

Handling:

RSWIMS Container Cnt: 1

Excluded from DE-Ci:

Thermal Power (w/cu.m.): 2.60247E-05

Neutron Dose Rate (mrem/hr):

Contact Dose Rate (mrem/hr): 2.00000E+01

Tot Pe-Ci: 7.21000E-05

ICRP 71 DE-Ci: 7.21604E-05

VOC/Hydrogen Gas Diffusion Detail

H2 Diffusion Release Date:

VOC Hold?:

VOC Resample Date:

Current Location Information

Facility ID: 4718

Trench / Unit:

Module:

Tier Level:

Tier Position:

GPS Data Flag:

Loc Beg Coordinates - N:

W:

Loc End Coordinates - N:

W:

Isotope Information

<u>Isotope Number</u>	<u>Isotope Name</u>	<u>Isotope Activity (Ci)</u>
7	Cs-134	1.29000E-07
8	Cs-137	6.55000E-04
13	Co-60	6.82000E-07
56	Na-22	6.42000E-08
97	Pu-240	7.21000E-05



## Solid Waste Information and Tracking System

SWIR310

## Container Listing Report

05/27/2014 11:23

for Package ID: 0016549

Page 4 of 4

Source Facility:

Location Facility:

Shipment #:

Waste Component Records

<u>Component ID</u>	<u>Component Text</u>	<u>PPM</u>	<u>Weight (kg)</u>	<u>Weight %</u>
7440-23-5	SODIUM		7.3800	6
GCMETAL	METAL (NONHAZARDOUS)		115.6200	94
			123.0000	

## Solid Waste Information and Tracking System

SWIR310

## Container Listing Report

05/27/2014 11:24

for Package ID: 0043409

Page 1 of 4

Source Facility:

Location Facility:

Shipment #:

Package ID: 0043409	Secondary Pkg ID:	Accumulation Date: 03/14/2008
Waste Type: D LLW	Phys State Cd: S	Deadline Date: 06/11/2008
Sec Waste Type: LLW	UHC Determination:	Ship Date:
Encasement/HIC#:	UHC's Applicable:	TSD Receive Date:
Profile / Rev#: TBD - 00	NFPA < 93.3C:	TSD Accept Date:
WSRd / Rev #: -	Storage Category:	Disposal Date:
CCP Control?:		

Routine Status: 100 Non-Routine / Other

Container Type / Descr:	DM / 55 GALLON	Container Empty Tare Wt. (kg):	24.0000
Container Volume (cu. meters):	0.2080	Waste Weight (kg):	123.0000
Labpack Flag:	N	Container Gross Wt. (kg):	147.0000
Container Contents:	3 BLTC DRIP CUPS (~1.8 GALLONS TOTAL SODIUM) IN ARGON INERTED DRIP CUP TRANSFER STEEL CONTAINER, INSIDE ARGON INERTED 30 GALLON STEEL DRUM, INSIDE ARGON INERTED 55 GALLON STEEL DRUM		

SWO Comments:

Generator Information

Generating Company:	CHPRC CH2M HILL PLATEAU REMEDIATION CO.	Generator ID:	0092501	Generator Group:	FFTF
Source Facility:	4718	Generator:	RJ SWAN		
Generator Comments:	ISOTOPICS & WEIGHTS ARE ESTIMATES. ADDITIONAL REVIEW & CHARACTERIZATION WILL BE DONE PRIOR TO TRANSPORT. RJS 6/19/12. 400 AREA TSD PROFILE DEVELOPED FOR TSD ACCEPTANCE AT THE 400 AREA INTERIM STORAGE.AREA (ISA).				

Solid Waste Information and Tracking System

SWIR310

Container Listing Report

05/27/2014 11:24

for Package ID: 0043409

Page 2 of 4

Source Facility:

Location Facility:

Shipment #:

Hazardous Package Detail

Container Status: Full

Flashpoint: N/A

pH Value: >12.5

Subpart CC Flag: NA

DW Numbers: D001 D003

RCRA Reporting

ADWR Stream Description: Sodium Metal -

Designation Code: DW

Source Code: G19 Other one-time or intermittent process

Comment: Decommissioning and Deactivation

Form Code: W319 Other inorganic solids, specify in comments

Comment: Sodium Wetted Piping

Origin Code:

Residual Mgmt Method:

Comment:

Management Method:

Comment:

Certification Group:

Reportable CERCLA?:

Pre-2007 Reporting

Waste Stream:

Offsite TSD Waste Stream:

RCRA Designated Date:

PCB Package Detail:

PCB Type:

PCB Source Concentration (PPM):

PCB Subtype:

PCB Waste Weight (kg):

PCB Contents:

Removed from Service:

Solid Waste Information and Tracking System  
Container Listing Report

for Package ID: 0043409

Source Facility:

Location Facility:

Shipment #:

SWIR310

05/27/2014 11:24

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Radioactive Package Detail

Waste Category: WC3	snm Waste?:	Thermal Power (w/cu.m.):	2.34121E-04
Combustible Flag:	Shielding:	Neutron Dose Rate (mrem/hr):	
Exceeds ISB Limit: N	Handling: C	Contact Dose Rate (mrem/hr):	2.50000E+01
NRC Class: A	RSWIMS Container Cnt: 1	Tot Pe-Ci:	6.49000E-04
	Excluded from DE-Ci:	ICRP 71 DE-Ci:	6.49543E-04

VOC/Hydrogen Gas Diffusion Detail

H2 Diffusion Release Date:	VOC Hold?:	VOC Resample Date:
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Current Location Information

Facility ID: 4718	Tier Level:	Loc Beg Coordinates - N:
Trench / Unit:	Tier Position:	W:
Module:	GPS Data Flag:	Loc End Coordinates - N:
		W:

Isotope Information

<u>Isotope Number</u>	<u>Isotope Name</u>	<u>Isotope Activity (Ci)</u>
7	Cs-134	1.16000E-06
8	Cs-137	5.89000E-03
13	Co-60	6.14000E-06
56	Na-22	5.77000E-07
97	Pu-240	6.49000E-04

Solid Waste Information and Tracking System

Container Listing Report

for Package ID: 0043409

Source Facility:

Location Facility:

Shipment #:

SWIR310

05/27/2014 11:24

Page 4 of 4

Waste Component Records

<u>Component ID</u>	<u>Component Text</u>	<u>PPM</u>	<u>Weight (kg)</u>	<u>Weight %</u>
7440-23-5	SODIUM		7.3800	6
GCMETAL	METAL (NONHAZARDOUS)		115.6200	94
			123.0000	

Solid Waste Information and Tracking System  
Container Listing Report  
for Package ID: 0044912

SWIR310

05/27/2014 11:24

Page 1 of 4

Source Facility:  
Location Facility:  
Shipment #:

Package ID: 0044912	Secondary Pkg ID:	Accumulation Date: 06/24/2008
Waste Type: D LLW	Phys State Cd: S	Deadline Date: 09/21/2008
Sec Waste Type: LLW	UHC Determination:	Ship Date:
Encasement/HIC#:	UHC's Applicable:	TSD Receive Date:
Profile / Rev#: TBD - 00	NFPA < 93.3C:	TSD Accept Date:
WSRd / Rev #: -	Storage Category:	Disposal Date:
CCP Control?:		

Routine Status: 100 Non-Routine / Other

Container Type / Descr:	DM / 85 GALLON	Container Empty Tare Wt. (kg):	35.4000
Container Volume (cu. meters):	0.3220	Waste Weight (kg):	188.7000
Labpack Flag:	N	Container Gross Wt. (kg):	226.8000
Container Contents:	3 CLEM DRIP CUPS (~<0.1 GALLONS TOTAL SODIUM) WITH STEEL SPACERS IN AN ARGON INERTED 55 GALLON STEEL DRUM IN A 85 GALLON STEEL DRUM		

SWO Comments:

Generator Information

Generating Company:	CHPRC CH2M HILL PLATEAU REMEDIATION CO.	Generator ID:	0092501	Generator Group:	FFTF
Source Facility:	4718	Generator:	RJ SWAN		
Generator Comments:	ISOTOPICS AND WEIGHTS ARE ESTIMATES. ADDITIONAL REVIEW AND CHARACTERIZATION WILL BE DONE PRIOR TO TRANSPORT. RJS 6/25/12. 400 AREA TSD PROFILE DEVELOPED FOR TSD ACCEPTANCE AT THE 400 AREA INTERIM STORAGE.AREA (ISA).				

Solid Waste Information and Tracking System

SWIR310

Container Listing Report

05/27/2014 11:24

for Package ID: 0044912

Page 2 of 4

Source Facility:

Location Facility:

Shipment #:

Hazardous Package Detail

Container Status: Full

Flashpoint: N/A

pH Value: >12.5

Subpart CC Flag: NA

DW Numbers: D001 D003

RCRA Reporting

ADWR Stream Description: Sodium Metal -

Designation Code: DW

Source Code: G19 Other one-time or intermittent process

Comment: Decommissioning and Deactivation

Form Code: W319 Other inorganic solids, specify in comments

Comment: Sodium Wetted Piping

Origin Code:

Residual Mgmt Method:

Comment:

Management Method:

Comment:

Certification Group:

Reportable CERCLA?:

Pre-2007 Reporting

Waste Stream:

Offsite TSD Waste Stream:

RCRA Designated Date:

PCB Package Detail:

PCB Type:

PCB Source Concentration (PPM):

PCB Subtype:

PCB Waste Weight (kg):

PCB Contents:

Removed from Service:

Solid Waste Information and Tracking System  
Container Listing Report

for Package ID: 0044912

Source Facility:

Location Facility:

Shipment #:

SWIR310

05/27/2014 11:24

Page 3 of 4

Radioactive Package Detail

Waste Category: WC1	snm Waste?:	Thermal Power (w/cu.m.):	8.40285E-06
Combustible Flag:	Shielding:	Neutron Dose Rate (mrem/hr):	
Exceeds ISB Limit: N	Handling: C	Contact Dose Rate (mrem/hr):	5.00000E-01
NRC Class: A	RSWIMS Container Cnt: 1	Tot Pe-Ci:	3.61000E-05
	Excluded from DE-Ci:	ICRP 71 DE-Ci:	3.61302E-05

VOC/Hydrogen Gas Diffusion Detail

H2 Diffusion Release Date:	VOC Hold?:	VOC Resample Date:
----------------------------	------------	--------------------

Current Location Information

Facility ID: 4718	Tier Level:	Loc Beg Coordinates - N:
Trench / Unit:	Tier Position:	W:
Module:	GPS Data Flag:	Loc End Coordinates - N:
		W:

Isotope Information

<u>Isotope Number</u>	<u>Isotope Name</u>	<u>Isotope Activity (Ci)</u>
7	Cs-134	6.46000E-08
8	Cs-137	3.27000E-04
13	Co-60	3.41000E-07
56	Na-22	3.21000E-08
97	Pu-240	3.61000E-05



## Solid Waste Information and Tracking System

SWIR310

## Container Listing Report

05/27/2014 11:24

for Package ID: 0044912

Page 4 of 4

Source Facility:

Location Facility:

Shipment #:

Waste Component Records

<u>Component ID</u>	<u>Component Text</u>	<u>PPM</u>	<u>Weight (kg)</u>	<u>Weight %</u>
7440-23-5	SODIUM		11.3220	6
GCMETAL	METAL (NONHAZARDOUS)		177.3780	94
			188.7000	

Solid Waste Information and Tracking System  
Container Listing Report  
for Package ID: 0044929

SWIR310

05/27/2014 11:25

Page 1 of 4

Source Facility:  
Location Facility:  
Shipment #:

Package ID: 0044929	Secondary Pkg ID:	Accumulation Date: 03/14/2008
Waste Type: D LLW	Phys State Cd: S	Deadline Date: 06/11/2008
Sec Waste Type: LLW	UHC Determination:	Ship Date:
Encasement/HIC#:	UHC's Applicable:	TSD Receive Date:
Profile / Rev#: TBD - 00	NFPA < 93.3C:	TSD Accept Date:
WSRd / Rev #: -	Storage Category:	Disposal Date:
CCP Control?:		

Routine Status: 100 Non-Routine / Other

Container Type / Descr:	DM / 85 GALLON	Container Empty Tare Wt. (kg):	38.1000
Container Volume (cu. meters):	0.3220	Waste Weight (kg):	188.7000
Labpack Flag:	N	Container Gross Wt. (kg):	226.8000
Container Contents:	3 CLEM DRIP CUPS (~5.4 GALLONS TOTAL SODIUM) WITH STEEL SPACERS IN AN ARGON INERTED 55 GALLON STEEL DRUM INSIDE OF A 85 GALLON STEEL DRUM		

SWO Comments:

Generator Information

Generating Company:	CHPRC CH2M HILL PLATEAU REMEDIATION CO.	Generator ID:	0092501	Generator Group:	FFTF
Source Facility:	4718	Generator:	RJ SWAN		
Generator Comments:	ISOTOPICS AND WEIGHTS ARE ESTIMATES. ADDITIONAL REVIEW AND CHARACTERIZATION WILL BE DONE PRIOR TO TRANSPORT. RJS 6/25/12. 400 AREA TSD PROFILE DEVELOPED FOR TSD ACCEPTANCE AT THE 400 AREA INTERIM STORAGE.AREA (ISA).				

Solid Waste Information and Tracking System

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Container Listing Report

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for Package ID: 0044929

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Source Facility:

Location Facility:

Shipment #:

Hazardous Package Detail

Container Status: Full

Flashpoint: N/A

pH Value: >12.5

Subpart CC Flag: NA

DW Numbers: D001 D003

RCRA Reporting

ADWR Stream Description: Sodium Metal -

Designation Code: DW

Source Code: G19 Other one-time or intermittent process

Comment: Decommissioning and Deactivation

Form Code: W319 Other inorganic solids, specify in comments

Comment: Sodium Wetted Piping

Origin Code:

Residual Mgmt Method:

Comment:

Management Method:

Comment:

Certification Group:

Reportable CERCLA?:

Pre-2007 Reporting

Waste Stream:

Offsite TSD Waste Stream:

RCRA Designated Date:

PCB Package Detail:

PCB Type:

PCB Source Concentration (PPM):

PCB Subtype:

PCB Waste Weight (kg):

PCB Contents:

Removed from Service:

Solid Waste Information and Tracking System  
Container Listing Report

for Package ID: 0044929

Source Facility:

Location Facility:

Shipment #:

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Radioactive Package Detail

Waste Category: WC3	snm Waste?:	Thermal Power (w/cu.m.):	4.54440E-04
Combustible Flag:	Shielding:	Neutron Dose Rate (mrem/hr):	
Exceeds ISB Limit: N	Handling: C	Contact Dose Rate (mrem/hr):	2.00000E+01
NRC Class: C	RSWIMS Container Cnt: 1	Tot Pe-Ci:	1.95000E-03
	Excluded from DE-Ci:	ICRP 71 DE-Ci:	1.95163E-03

VOC/Hydrogen Gas Diffusion Detail

H2 Diffusion Release Date:	VOC Hold?:	VOC Resample Date:
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Current Location Information

Facility ID: 4718	Tier Level:	Loc Beg Coordinates - N:
Trench / Unit:	Tier Position:	W:
Module:	GPS Data Flag:	Loc End Coordinates - N:
		W:

Isotope Information

<u>Isotope Number</u>	<u>Isotope Name</u>	<u>Isotope Activity (Ci)</u>
7	Cs-134	3.49000E-06
8	Cs-137	1.77000E-02
13	Co-60	1.84000E-05
56	Na-22	1.73000E-06
97	Pu-240	1.95000E-03

## Solid Waste Information and Tracking System

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## Container Listing Report

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for Package ID: 0044929

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Source Facility:

Location Facility:

Shipment #:

Waste Component Records

<u>Component ID</u>	<u>Component Text</u>	<u>PPM</u>	<u>Weight (kg)</u>	<u>Weight %</u>
7440-23-5	SODIUM		11.3220	6
GCMETAL	METAL (NONHAZARDOUS)		177.3780	94
			188.7000	

## Solid Waste Information and Tracking System

SWIR310

## Container Listing Report

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for Package ID: 0044930

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Source Facility:

Location Facility:

Shipment #:

Package ID: 0044930	Secondary Pkg ID:	Accumulation Date: 06/24/2008
Waste Type: D LLW	Phys State Cd: S	Deadline Date: 09/21/2008
Sec Waste Type: LLW	UHC Determination:	Ship Date:
Encasement/HIC#:	UHC's Applicable:	TSD Receive Date:
Profile / Rev#: TBD - 00	NFPA < 93.3C:	TSD Accept Date:
WSRd / Rev #: -	Storage Category:	Disposal Date:
CCP Control?:		

Routine Status: 100 Non-Routine / Other

Container Type / Descr: DM / 85 GALLON	Container Empty Tare Wt. (kg): 35.4000
Container Volume (cu. meters): 0.3220	Waste Weight (kg): 188.7000
Labpack Flag: N	Container Gross Wt. (kg): 226.8000
Container Contents: IDENT 15/17 SODIUM OVERFLOW POT AND SMALL STAINLESS STEEL CAN WITH TRACE AMOUNT (~1.25 GALLONS TOTAL SODIUM) IN ARGON INERTED 55 GALLON STEEL DRUM WITH SPACER, IN 85 GALLON STEEL DRUM	

SWO Comments:

Generator Information

Generating Company: CHPRC CH2M HILL PLATEAU REMEDIATION CO.

Generator ID: 0092501 Generator Group: FFTF

Source Facility: 4718

Generator: RJ SWAN

Generator Comments: ISOTOPICS AND WEIGHTS ARE ESTIMATES. ADDITIONAL REVIEW AND CHARACTERIZATION WILL BE DONE PRIOR TO  
TRANSPORT. RJS 6/25/12. 400 AREA TSD PROFILE DEVOLPED FOR TSD ACCEPTANCE AT THE 400 AREA INTERIM  
STORAGE.AREA (ISA).

Solid Waste Information and Tracking System

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Container Listing Report

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for Package ID: 0044930

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Source Facility:

Location Facility:

Shipment #:

Hazardous Package Detail

Container Status: Full

Flashpoint: N/A

pH Value: >12.5

Subpart CC Flag: NA

DW Numbers: D001 D003

RCRA Reporting

ADWR Stream Description: Sodium Metal -

Designation Code: DW

Source Code: G19 Other one-time or intermittent process

Comment: Decommissioning and Deactivation

Form Code: W319 Other inorganic solids, specify in comments

Comment: Sodium Wetted Piping

Origin Code:

Residual Mgmt Method:

Comment:

Management Method:

Comment:

Certification Group:

Reportable CERCLA?:

Pre-2007 Reporting

Waste Stream:

Offsite TSD Waste Stream:

RCRA Designated Date:

PCB Package Detail:

PCB Type:

PCB Source Concentration (PPM):

PCB Subtype:

PCB Waste Weight (kg):

PCB Contents:

Removed from Service:

Solid Waste Information and Tracking System  
Container Listing Report

for Package ID: 0044930

Source Facility:

Location Facility:

Shipment #:

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Radioactive Package Detail

Waste Category: WC3	snm Waste?:	Thermal Power (w/cu.m.):	1.05049E-04
Combustible Flag:	Shielding:	Neutron Dose Rate (mrem/hr):	
Exceeds ISB Limit: N	Handling: C	Contact Dose Rate (mrem/hr):	6.00000E+00
NRC Class: A	RSWIMS Container Cnt: 1	Tot Pe-Ci:	4.51000E-04
	Excluded from DE-Ci:	ICRP 71 DE-Ci:	4.51377E-04

VOC/Hydrogen Gas Diffusion Detail

H2 Diffusion Release Date:	VOC Hold?:	VOC Resample Date:
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Current Location Information

Facility ID: 4718	Tier Level:	Loc Beg Coordinates - N:
Trench / Unit:	Tier Position:	W:
Module:	GPS Data Flag:	Loc End Coordinates - N:
		W:

Isotope Information

<u>Isotope Number</u>	<u>Isotope Name</u>	<u>Isotope Activity (Ci)</u>
7	Cs-134	8.08000E-07
8	Cs-137	4.09000E-03
13	Co-60	4.26000E-06
56	Na-22	4.01000E-07
97	Pu-240	4.51000E-04



## Solid Waste Information and Tracking System

SWIR310

## Container Listing Report

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for Package ID: 0044930

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Source Facility:

Location Facility:

Shipment #:

Waste Component Records

<u>Component ID</u>	<u>Component Text</u>	<u>PPM</u>	<u>Weight (kg)</u>	<u>Weight %</u>
7440-23-5	SODIUM		11.3220	6
GCMETAL	METAL (NONHAZARDOUS)		177.3780	94
			188.7000	

Solid Waste Information and Tracking System  
Container Listing Report

for Package ID: 0046664

Source Facility:

Location Facility:

Shipment #:

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Package ID: 0046664	Secondary Pkg ID:	Accumulation Date: 08/11/2008
Waste Type: D LLW	Phys State Cd: S	Deadline Date: 11/08/2008
Sec Waste Type: LLW	UHC Determination:	Ship Date:
Encasement/HIC#:	UHC's Applicable:	TSD Receive Date:
Profile / Rev#: TBD - 00	NFPA < 93.3C:	TSD Accept Date:
WSRd / Rev #: -	Storage Category:	Disposal Date:
CCP Control?:		

Routine Status: 100 Non-Routine / Other

Container Type / Descr: DM / 85 GALLON	Container Empty Tare Wt. (kg): 35.4000
Container Volume (cu. meters): 0.3220	Waste Weight (kg): 188.7000
Labpack Flag: N	Container Gross Wt. (kg): 226.8000
Container Contents: FSF SODIUM FILL STATION PIPING, 4 VALVES, AND 1 FILTER (~1.5 GALLONS TOTAL SODIUM) IN ARGON INERTED 85 GALLON STEEL DRUM	

SWO Comments:

Generator Information

Generating Company: CHPRC CH2M HILL PLATEAU REMEDIATION CO.	Generator ID: 0092501	Generator Group: FFTF
Source Facility: 4718	Generator: RJ SWAN	
Generator Comments: ISOTOPICS AND WEIGHTS ARE ESTIMATES. ADDITIONAL REVIEW AND CHARACTERIZATION WILL BE DONE PRIOR TO TRANSPORT. RJS 6/25/12. 400 AREA TSD PROFILE DEVOLPED FOR TSD ACCEPTANCE AT THE 400 AREA INTERIM STORAGE.AREA (ISA).		

Solid Waste Information and Tracking System  
Container Listing Report  
for Package ID: 0046664

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Source Facility:  
Location Facility:  
Shipment #:

Hazardous Package Detail

Container Status: Full Flashpoint: N/A pH Value: >12.5 Subpart CC Flag: NA  
DW Numbers: D001 D003

RCRA Reporting

ADWR Stream Description: Sodium Metal -  
Designation Code: DW  
Source Code: G19 Other one-time or intermittent process  
Comment: Decommissioning and Deactivation  
Form Code: W319 Other inorganic solids, specify in comments  
Comment: Sodium Wetted Piping  
Origin Code:  
Residual Mgmt Method:  
Comment:  
Management Method:  
Comment:  
Certification Group:  
Reportable CERCLA?:

Pre-2007 Reporting

Waste Stream: Offsite TSD Waste Stream: RCRA Designated Date:

PCB Package Detail:

PCB Type: PCB Source Concentration (PPM):  
PCB Subtype: PCB Waste Weight (kg):  
PCB Contents: Removed from Service:

## Solid Waste Information and Tracking System

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## Container Listing Report

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for Package ID: 0046664

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Source Facility:

Location Facility:

Shipment #:

Radioactive Package Detail

Waste Category: WC3	snm Waste?:	Thermal Power (w/cu.m.):	1.26069E-04
Combustible Flag:	Shielding:	Neutron Dose Rate (mrem/hr):	
Exceeds ISB Limit: N	Handling: C	Contact Dose Rate (mrem/hr):	2.00000E-01
NRC Class: A	RSWIMS Container Cnt: 1	Tot Pe-Ci:	5.41000E-04
	Excluded from DE-Ci:	ICRP 71 DE-Ci:	5.41453E-04

VOC/Hydrogen Gas Diffusion Detail

H2 Diffusion Release Date:

VOC Hold?:

VOC Resample Date:

Current Location Information

Facility ID: 4718	Tier Level:	Loc Beg Coordinates - N:
Trench / Unit:	Tier Position:	W:
Module:	GPS Data Flag:	Loc End Coordinates - N:
		W:

Isotope Information

<u>Isotope Number</u>	<u>Isotope Name</u>	<u>Isotope Activity (Ci)</u>
7	Cs-134	9.70000E-07
8	Cs-137	4.91000E-03
13	Co-60	5.11000E-06
56	Na-22	4.81000E-07
97	Pu-240	5.41000E-04

## Solid Waste Information and Tracking System

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## Container Listing Report

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for Package ID: 0046664

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Source Facility:

Location Facility:

Shipment #:

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Waste Component Records

<u>Component ID</u>	<u>Component Text</u>	<u>PPM</u>	<u>Weight (kg)</u>	<u>Weight %</u>
7440-23-5	SODIUM		11.3220	6
GCMETAL	METAL (NONHAZARDOUS)		177.3780	94
			188.7000	

## Solid Waste Information and Tracking System

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## Container Listing Report

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for Package ID: 0046665

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Source Facility:

Location Facility:

Shipment #:

Package ID: 0046665	Secondary Pkg ID:	Accumulation Date: 06/24/2008
Waste Type: D LLW	Phys State Cd: S	Deadline Date: 09/21/2008
Sec Waste Type: LLW	UHC Determination:	Ship Date:
Encasement/HIC#:	UHC's Applicable:	TSD Receive Date:
Profile / Rev#: TBD - 00	NFPA < 93.3C:	TSD Accept Date:
WSRd / Rev #: -	Storage Category:	Disposal Date:
CCP Control?:		

Routine Status: 100 Non-Routine / Other

Container Type / Descr:	DM / 85 GALLON	Container Empty Tare Wt. (kg):	35.4000
Container Volume (cu. meters):	0.3220	Waste Weight (kg):	188.7000
Labpack Flag:	N	Container Gross Wt. (kg):	226.8000
Container Contents:	IDENT 17-2 DRIP CUP (~0.4 GALLONS TOTAL SODIUM) WITH STEEL SPACER IN ARGON INERTED 55 GALLON STEEL DRUM IN A 85 GALLON STEEL DRUM		

SWO Comments:

Generator Information

Generating Company:	CHPRC CH2M HILL PLATEAU REMEDIATION CO.	Generator ID:	0092501	Generator Group:	FFTF
Source Facility:	4718	Generator:	RJ SWAN		
Generator Comments:	ISOTOPICS AND WEIGHTS ARE ESTIMATES. ADDITIONAL REVIEW AND CHARACTERIZATION WILL BE DONE PRIOR TO TRANSPORT. RJS 6/25/12. 400 AREA TSD PROFILE DEVELOPED FOR TSD ACCEPTANCE AT THE 400 AREA INTERIM STORAGE.AREA (ISA).				

Solid Waste Information and Tracking System  
Container Listing Report  
for Package ID: 0046665  
Source Facility:  
Location Facility:  
Shipment #:

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Hazardous Package Detail

Container Status: Full Flashpoint: N/A pH Value: >12.5 Subpart CC Flag: NA  
DW Numbers: D001 D003

RCRA Reporting

ADWR Stream Description: Sodium Metal -  
Designation Code: DW  
Source Code: G19 Other one-time or intermittent process  
Comment: Decommissioning and Deactivation  
Form Code: W319 Other inorganic solids, specify in comments  
Comment: Sodium Wetted Piping  
Origin Code:  
Residual Mgmt Method:  
Comment:  
Management Method:  
Comment:  
Certification Group:  
Reportable CERCLA?:

Pre-2007 Reporting

Waste Stream: Offsite TSD Waste Stream: RCRA Designated Date:

PCB Package Detail:

PCB Type: PCB Source Concentration (PPM):  
PCB Subtype: PCB Waste Weight (kg):  
PCB Contents: Removed from Service:

## Solid Waste Information and Tracking System

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## Container Listing Report

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Source Facility:

Location Facility:

Shipment #:

Radioactive Package Detail

Waste Category: WC1	snm Waste?:	Thermal Power (w/cu.m.):	3.36024E-05
Combustible Flag:	Shielding:	Neutron Dose Rate (mrem/hr):	
Exceeds ISB Limit: N	Handling: C	Contact Dose Rate (mrem/hr):	2.00000E-01
NRC Class: A	RSWIMS Container Cnt: 1	Tot Pe-Ci:	1.44000E-04
	Excluded from DE-Ci:	ICRP 71 DE-Ci:	1.44121E-04

VOC/Hydrogen Gas Diffusion Detail

H2 Diffusion Release Date:	VOC Hold?:	VOC Resample Date:
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Current Location Information

Facility ID: 4718	Tier Level:	Loc Beg Coordinates - N:
Trench / Unit:	Tier Position:	W:
Module:	GPS Data Flag:	Loc End Coordinates - N:
		W:

Isotope Information

Isotope Number	Isotope Name	Isotope Activity (Ci)
7	Cs-134	2.59000E-07
8	Cs-137	1.31000E-03
13	Co-60	1.36000E-06
56	Na-22	1.28000E-07
97	Pu-240	1.44000E-04



## Solid Waste Information and Tracking System

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## Container Listing Report

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for Package ID: 0046665

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Source Facility:

Location Facility:

Shipment #:

Waste Component Records

<u>Component ID</u>	<u>Component Text</u>	<u>PPM</u>	<u>Weight (kg)</u>	<u>Weight %</u>
7440-23-5	SODIUM		11.3220	6
GCMETAL	METAL (NONHAZARDOUS)		177.3780	94
			188.7000	

Solid Waste Information and Tracking System  
Container Listing Report

for Package ID: 0049499

Source Facility:

Location Facility:

Shipment #:

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Package ID: 0049499	Secondary Pkg ID:	Accumulation Date: 08/04/2008
Waste Type: D LLW	Phys State Cd: S	Deadline Date: 11/01/2008
Sec Waste Type: LLW	UHC Determination:	Ship Date:
Encasement/HIC#:	UHC's Applicable:	TSD Receive Date:
Profile / Rev#: TBD - 00	NFPA < 93.3C:	TSD Accept Date:
WSRd / Rev #: -	Storage Category:	Disposal Date:
CCP Control?:		

Routine Status: 100 Non-Routine / Other

Container Type / Descr:	DM / 208 LITER	Container Empty Tare Wt. (kg):	21.3000
Container Volume (cu. meters):	0.2080	Waste Weight (kg):	123.0000
Labpack Flag:	N	Container Gross Wt. (kg):	147.0000
Container Contents:	ONE NAK PRESSURE TRANSDUCER ,OXYGEN MONITOR ENCASED IN SODIUM IN STAINLESS STEEL PIPE (ESTIMATE <0.1 GALLONS SODIUM), FSF SODIUM FILL STATION ITEMS (ESTIMATE 1.5 GALLONS SODIUM) DRUM BLACK WITH WHITE LID STEEL		

SWO Comments:

Generator Information

Generating Company:	CHPRC CH2M HILL PLATEAU REMEDIATION CO.	Generator ID:	0092501	Generator Group:	FFTF
Source Facility:	4718	Generator:	RJ SWAN		
Generator Comments:	ISOTOPICS AND WEIGHTS ARE ESTIMATES. ADDITIONAL REVIEW AND CHARACTERIZATION WILL BE DONE PRIOR TO TRANSPORT. RJS 6/29/12. 400 AREA TSD PROFILE DEVELOPED FOR TSD ACCEPTANCE AT THE 400 AREA INTERIM STORAGE.AREA (ISA).				

Solid Waste Information and Tracking System

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for Package ID: 0049499

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Source Facility:

Location Facility:

Shipment #:

Hazardous Package Detail

Container Status: Full

Flashpoint: N/A

pH Value: >12.5

Subpart CC Flag: NA

DW Numbers: D001 D003

RCRA Reporting

ADWR Stream Description: Sodium Metal -

Designation Code: DW

Source Code: G19 Other one-time or intermittent process

Comment: Decommissioning and Deactivation

Form Code: W319 Other inorganic solids, specify in comments

Comment: Sodium Wetted Piping

Origin Code:

Residual Mgmt Method:

Comment:

Management Method:

Comment:

Certification Group:

Reportable CERCLA?:

Pre-2007 Reporting

Waste Stream:

Offsite TSD Waste Stream:

RCRA Designated Date:

PCB Package Detail:

PCB Type:

PCB Source Concentration (PPM):

PCB Subtype:

PCB Waste Weight (kg):

PCB Contents:

Removed from Service:

## Solid Waste Information and Tracking System

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Source Facility:

Location Facility:

Shipment #:

Radioactive Package Detail

Waste Category: WC3	snm Waste?:	Thermal Power (w/cu.m.):	3.66905E-02
Combustible Flag:	Shielding:	Neutron Dose Rate (mrem/hr):	
Exceeds ISB Limit: C	Handling:	Contact Dose Rate (mrem/hr):	2.00000E+01
NRC Class: A	RSWIMS Container Cnt: 1	Tot Pe-Ci:	5.41000E-04
	Excluded from DE-Ci:	ICRP 71 DE-Ci:	1.49021E-01

VOC/Hydrogen Gas Diffusion Detail

H2 Diffusion Release Date:

VOC Hold?:

VOC Resample Date:

Current Location Information

Facility ID: 4718	Tier Level:	Loc Beg Coordinates - N:
Trench / Unit:	Tier Position:	W:
Module:	GPS Data Flag:	Loc End Coordinates - N:
		W:

Isotope Information

<u>Isotope Number</u>	<u>Isotope Name</u>	<u>Isotope Activity (Ci)</u>
7	Cs-134	9.70000E-07
8	Cs-137	4.91000E-03
13	Co-60	5.11000E-06
56	Na-22	4.81000E-07
97	Pu-240	5.41000E-04
130	Th-228	2.32000E-01

## Solid Waste Information and Tracking System

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## Container Listing Report

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for Package ID: 0049499

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Source Facility:

Location Facility:

Shipment #:

Waste Component Records

<u>Component ID</u>	<u>Component Text</u>	<u>PPM</u>	<u>Weight (kg)</u>	<u>Weight %</u>
7440-23-5	SODIUM		7.3800	6
GCMETAL	METAL (NONHAZARDOUS)		115.6200	94
			123.0000	

Solid Waste Information and Tracking System  
Container Listing Report

for Package ID: 0055593

Source Facility:

Location Facility:

Shipment #:

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Package ID: 0055593	Secondary Pkg ID:	Accumulation Date: 06/24/2009
Waste Type: D LLW	Phys State Cd: S	Deadline Date: 09/21/2009
Sec Waste Type: LLW	UHC Determination:	Ship Date:
Encasement/HIC#:	UHC's Applicable:	TSD Receive Date:
Profile / Rev#: TBD - 00	NFPA < 93.3C:	TSD Accept Date:
WSRd / Rev #: -	Storage Category:	Disposal Date:
CCP Control?:		

Routine Status: 100 Non-Routine / Other

Container Type / Descr: DM / 208 LITER	Container Empty Tare Wt. (kg): 24.0000
Container Volume (cu. meters): 0.2080	Waste Weight (kg): 123.0000
Labpack Flag: N	Container Gross Wt. (kg): 147.0000
Container Contents: SMALL CANS <GALLON SIZE WITH SODIUM CHUNKS; CONTAMINATED HOLE SAWS ; BLTC DRIP CUPS IN 55 GALLON STEEL DRUM (MAY BE INERTED WITH ARGON)	
SWO Comments:	

Generator Information

Generating Company: CHPRC CH2M HILL PLATEAU REMEDIATION CO.

Source Facility: 4718

Generator Comments: ISOTOPICS AND WEIGHTS ARE ESTIMATES. ADDITIONAL REVIEW AND CHARACTERIZATION WILL BE DONE PRIOR TO TRANSPORT. RJS 6/25/12. 400 AREA TSD PROFILE DEVELOPED FOR TSD ACCEPTANCE AT THE 400 AREA INTERIM STORAGE.AREA (ISA).

Generator ID: 0092501 Generator Group: FFTF

Generator: RJ SWAN

Solid Waste Information and Tracking System

Container Listing Report

for Package ID: 0055593

Source Facility:

Location Facility:

Shipment #:

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Hazardous Package Detail

Container Status: Full

Flashpoint: N/A

pH Value: >12.5

Subpart CC Flag: NA

DW Numbers: D001 D003

RCRA Reporting

ADWR Stream Description: Sodium Metal -

Designation Code: DW

Source Code: G19 Other one-time or intermittent process

Comment: Decommissioning and Deactivation

Form Code: W319 Other inorganic solids, specify in comments

Comment: Sodium Wetted Piping

Origin Code:

Residual Mgmt Method:

Comment:

Management Method:

Comment:

Certification Group:

Reportable CERCLA?:

Pre-2007 Reporting

Waste Stream:

Offsite TSD Waste Stream:

RCRA Designated Date:

PCB Package Detail:

PCB Type:

PCB Source Concentration (PPM):

PCB Subtype:

PCB Waste Weight (kg):

PCB Contents:

Removed from Service:

## Solid Waste Information and Tracking System

SWIR310

## Container Listing Report

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for Package ID: 0055593

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Source Facility:

Location Facility:

Shipment #:

Radioactive Package Detail

Waste Category: WC3	snm Waste?:	Thermal Power (w/cu.m.):	3.09591E-04
Combustible Flag:	Shielding:	Neutron Dose Rate (mrem/hr):	
Exceeds ISB Limit: N	Handling:	Contact Dose Rate (mrem/hr):	5.00000E-01
NRC Class: A	RSWIMS Container Cnt: 1	Tot Pe-Ci:	8.58000E-04
	Excluded from DE-Ci:	ICRP 71 DE-Ci:	8.58719E-04

VOC/Hydrogen Gas Diffusion Detail

H2 Diffusion Release Date:	VOC Hold?:	VOC Resample Date:
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Current Location Information

Facility ID: 4718	Tier Level:	Loc Beg Coordinates - N:
Trench / Unit:	Tier Position:	W:
Module:	GPS Data Flag:	Loc End Coordinates - N:
		W:

Isotope Information

<u>Isotope Number</u>	<u>Isotope Name</u>	<u>Isotope Activity (Ci)</u>
7	Cs-134	1.54000E-06
8	Cs-137	7.79000E-03
13	Co-60	8.11000E-06
56	Na-22	7.63000E-07
97	Pu-240	8.58000E-04



Solid Waste Information and Tracking System

Container Listing Report

for Package ID: 0055593

Source Facility:

Location Facility:

Shipment #:

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Waste Component Records

<u>Component ID</u>	<u>Component Text</u>	<u>PPM</u>	<u>Weight (kg)</u>	<u>Weight %</u>
7440-23-5	SODIUM		7.3800	6
GCMETAL	METAL (NONHAZARDOUS)		115.6200	94
			123.0000	

## Solid Waste Information and Tracking System

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## Container Listing Report

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for Package ID: 0063472

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Source Facility:

Location Facility:

Shipment #:

Package ID: 0063472	Secondary Pkg ID:	Accumulation Date: 06/24/2009
Waste Type: D LLW	Phys State Cd: S	Deadline Date: 09/21/2009
Sec Waste Type: LLW	UHC Determination:	Ship Date:
Encasement/HIC#:	UHC's Applicable:	TSD Receive Date:
Profile / Rev#: TBD - 00	NFPA < 93.3C:	TSD Accept Date:
WSRd / Rev #: -	Storage Category:	Disposal Date:
CCP Control?:		

Routine Status: 100 Non-Routine / Other

Container Type / Descr:	DM / 10 GALLON	Container Empty Tare Wt. (kg):	4.5000
Container Volume (cu. meters):	0.0379	Waste Weight (kg):	22.2000
Labpack Flag:	N	Container Gross Wt. (kg):	26.8000
Container Contents:	HALF GALLON METAL CAN INERTED WITH ARGON (~0.5 GALLON SODIUM) [MAY BE IN A 5 GALLON CAN], IN A 10 GALLON STEEL CAN, FROM CLEM GRAPPLE CHANGE PIT		

SWO Comments:

Generator Information

Generating Company:	CHPRC CH2M HILL PLATEAU REMEDIATION CO.	Generator ID:	0092501	Generator Group:	FFTF
Source Facility:	4718	Generator:	RJ SWAN		
Generator Comments:	ISOTOPICS AND WEIGHTS ARE ESTIMATES. ADDITIONAL REVIEW AND CHARACTERIZATION WILL BE DONE PRIOR TO TRANSPORT. RJS 6/25/12. 400 AREA TSD PROFILE DEVELOPED FOR TSD ACCEPTANCE AT THE 400 AREA INTERIM STORAGE.AREA (ISA).				

Solid Waste Information and Tracking System  
Container Listing Report  
for Package ID: 0063472  
Source Facility:  
Location Facility:  
Shipment #:

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Hazardous Package Detail

Container Status: Full Flashpoint: N/A pH Value: >12.5 Subpart CC Flag: NA  
DW Numbers: D001 D003

RCRA Reporting

ADWR Stream Description: Sodium Metal -  
Designation Code: DW  
Source Code: G19 Other one-time or intermittent process  
Comment: Decommissioning and Deactivation  
Form Code: W319 Other inorganic solids, specify in comments  
Comment: Sodium Wetted Piping  
Origin Code:  
Residual Mgmt Method:  
Comment:  
Management Method:  
Comment:  
Certification Group:  
Reportable CERCLA?:

Pre-2007 Reporting

Waste Stream: Offsite TSD Waste Stream: RCRA Designated Date:

PCB Package Detail:

PCB Type: PCB Source Concentration (PPM):  
PCB Subtype: PCB Waste Weight (kg):  
PCB Contents: Removed from Service:

Solid Waste Information and Tracking System  
Container Listing Report

for Package ID: 0063472

Source Facility:

Location Facility:

Shipment #:

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Radioactive Package Detail

Waste Category: WC3	snm Waste?:	Thermal Power (w/cu.m.):	3.57177E-04
Combustible Flag:	Shielding:	Neutron Dose Rate (mrem/hr):	
Exceeds ISB Limit: N	Handling: C	Contact Dose Rate (mrem/hr):	8.00000E+00
NRC Class: A	RSWIMS Container Cnt: 1	Tot Pe-Ci:	1.80000E-04
	Excluded from DE-Ci:	ICRP 71 DE-Ci:	1.80151E-04

VOC/Hydrogen Gas Diffusion Detail

H2 Diffusion Release Date:	VOC Hold?:	VOC Resample Date:
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Current Location Information

Facility ID: 4718	Tier Level:	Loc Beg Coordinates - N:
Trench / Unit:	Tier Position:	W:
Module:	GPS Data Flag:	Loc End Coordinates - N:
		W:

Isotope Information

<u>Isotope Number</u>	<u>Isotope Name</u>	<u>Isotope Activity (Ci)</u>
7	Cs-134	3.23000E-07
8	Cs-137	1.64000E-03
13	Co-60	1.70000E-06
56	Na-22	1.60000E-07
97	Pu-240	1.80000E-04

Solid Waste Information and Tracking System

Container Listing Report

for Package ID: 0063472

Source Facility:

Location Facility:

Shipment #:

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Waste Component Records

<u>Component ID</u>	<u>Component Text</u>	<u>PPM</u>	<u>Weight (kg)</u>	<u>Weight %</u>
7440-23-5	SODIUM		1.3320	6
GCMETAL	METAL (NONHAZARDOUS)		20.8680	94
			22.2000	

## Solid Waste Information and Tracking System

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## Container Listing Report

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for Package ID: CP-12-11-F

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Source Facility:

Location Facility:

Shipment #:

Package ID: CP-12-11-F	Secondary Pkg ID: 95-21	Accumulation Date: 06/24/2009
Waste Type: D LLW	Phys State Cd: S	Deadline Date: 09/21/2009
Sec Waste Type: LLW	UHC Determination:	Ship Date:
Encasement/HIC#:	UHC's Applicable:	TSD Receive Date:
Profile / Rev#: TBD - 00	NFPA < 93.3C:	TSD Accept Date:
WSRd / Rev #: -	Storage Category:	Disposal Date:
CCP Control?:		

Routine Status: 100 Non-Routine / Other

Container Type / Descr: DM / 5 GALLON	Container Empty Tare Wt. (kg): 2.3000
Container Volume (cu. meters): 0.0189	Waste Weight (kg): 10.9000
Labpack Flag: N	Container Gross Wt. (kg): 13.2000
Container Contents: BLTC DRIP CUP (ESTIMATE < 1 GALLON SODIUM) IN 5 GALLON STEEL CAN	

SWO Comments:

Generator Information

Generating Company: CHPRC CH2M HILL PLATEAU REMEDIATION CO.	Generator ID: 0092501	Generator Group: FFTF
Source Facility: 4718	Generator: RJ SWAN	
Generator Comments: ISOTOPICS AND WEIGHTS ARE ESTIMATES. ADDITIONAL REVIEW AND CHARACTERIZATION WILL BE DONE PRIOR TO TRANSPORT. RJS 7/9/12. 400 AREA TSD PROFILE DEVELOPED FOR TSD ACCEPTANCE AT THE 400 AREA INTERIM STORAGE.AREA (ISA).		

Solid Waste Information and Tracking System  
Container Listing Report  
for Package ID: CP-12-11-F  
Source Facility:  
Location Facility:  
Shipment #:

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Hazardous Package Detail

Container Status: Full Flashpoint: N/A pH Value: >12.5 Subpart CC Flag: NA  
DW Numbers: D001 D003

RCRA Reporting

ADWR Stream Description: Sodium Metal -  
Designation Code: DW  
Source Code: G19 Other one-time or intermittent process  
Comment: Decommissioning and Deactivation  
Form Code: W319 Other inorganic solids, specify in comments  
Comment: Sodium Wetted Piping  
Origin Code:  
Residual Mgmt Method:  
Comment:  
Management Method:  
Comment:  
Certification Group:  
Reportable CERCLA?:

Pre-2007 Reporting

Waste Stream: Offsite TSD Waste Stream: RCRA Designated Date:

PCB Package Detail:

PCB Type: PCB Source Concentration (PPM):  
PCB Subtype: PCB Waste Weight (kg):  
PCB Contents: Removed from Service:

## Solid Waste Information and Tracking System

SWIR310

## Container Listing Report

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for Package ID: CP-12-11-F

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Source Facility:

Location Facility:

Shipment #:

Radioactive Package Detail

Waste Category: WC3	snm Waste?:	Thermal Power (w/cu.m.):	1.43160E-03
Combustible Flag:	Shielding:	Neutron Dose Rate (mrem/hr):	
Exceeds ISB Limit: N	Handling: C	Contact Dose Rate (mrem/hr):	8.00000E+00
NRC Class: C	RSWIMS Container Cnt: 1	Tot Pe-Ci:	3.61000E-04
	Excluded from DE-Ci:	ICRP 71 DE-Ci:	3.61302E-04

VOC/Hydrogen Gas Diffusion Detail

H2 Diffusion Release Date:	VOC Hold?:	VOC Resample Date:
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Current Location Information

Facility ID: 4718	Tier Level:	Loc Beg Coordinates - N:
Trench / Unit:	Tier Position:	W:
Module:	GPS Data Flag:	Loc End Coordinates - N:
		W:

Isotope Information

Isotope Number	Isotope Name	Isotope Activity (Ci)
7	Cs-134	6.46000E-07
8	Cs-137	3.27000E-03
13	Co-60	3.41000E-06
56	Na-22	3.21000E-07
97	Pu-240	3.61000E-04



Solid Waste Information and Tracking System

Container Listing Report

for Package ID: CP-12-11-F

Source Facility:

Location Facility:

Shipment #:

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Waste Component Records

<u>Component ID</u>	<u>Component Text</u>	<u>PPM</u>	<u>Weight (kg)</u>	<u>Weight %</u>
7440-23-5	SODIUM		0.6540	6
GCMETAL	METAL (NONHAZARDOUS)		10.2460	94
			10.9000	

## Solid Waste Information and Tracking System

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## Container Listing Report

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for Package ID: CP-12-12-F

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Source Facility:

Location Facility:

Shipment #:

Package ID: CP-12-12-F	Secondary Pkg ID: 95-19	Accumulation Date: 06/24/2009
Waste Type: D LLW	Phys State Cd: S	Deadline Date: 09/21/2009
Sec Waste Type: LLW	UHC Determination:	Ship Date:
Encasement/HIC#:	UHC's Applicable:	TSD Receive Date:
Profile / Rev#: TBD - 00	NFPA < 93.3C:	TSD Accept Date:
WSRd / Rev #: -	Storage Category:	Disposal Date:
CCP Control?:		

Routine Status: 100 Non-Routine / Other

Container Type / Descr: DM / 5 GALLON	Container Empty Tare Wt. (kg): 2.3000
Container Volume (cu. meters): 0.0189	Waste Weight (kg): 10.9000
Labpack Flag: N	Container Gross Wt. (kg): 13.2000
Container Contents: BLTC DRIP CUP (ESTIMATE < 1 GALLON SODIUM) IN 5 GALLON STEEL CAN	

SWO Comments:

Generator Information

Generating Company: CHPRC CH2M HILL PLATEAU REMEDIATION CO.

Generator ID: 0092501 Generator Group: FFTF

Source Facility: 4718

Generator: RJ SWAN

Generator Comments: ISOTOPICS AND WEIGHTS ARE ESTIMATES. ADDITIONAL REVIEW AND CHARACTERIZATION WILL BE DONE PRIOR TO TRANSPORT. RJS 7/9/12. 400 AREA TSD PROFILE DEVELOPED FOR TSD ACCEPTANCE AT THE 400 AREA INTERIM STORAGE.AREA (ISA).

Solid Waste Information and Tracking System

Container Listing Report

for Package ID: CP-12-12-F

Source Facility:

Location Facility:

Shipment #:

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Hazardous Package Detail

Container Status: Full

Flashpoint: N/A

pH Value: >12.5

Subpart CC Flag: NA

DW Numbers: D001 D003

RCRA Reporting

ADWR Stream Description: Sodium Metal -

Designation Code: DW

Source Code: G19 Other one-time or intermittent process

Comment: Decommissioning and Deactivation

Form Code: W319 Other inorganic solids, specify in comments

Comment: Sodium Wetted Piping

Origin Code:

Residual Mgmt Method:

Comment:

Management Method:

Comment:

Certification Group:

Reportable CERCLA?:

Pre-2007 Reporting

Waste Stream:

Offsite TSD Waste Stream:

RCRA Designated Date:

PCB Package Detail:

PCB Type:

PCB Source Concentration (PPM):

PCB Subtype:

PCB Waste Weight (kg):

PCB Contents:

Removed from Service:

## Solid Waste Information and Tracking System

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## Container Listing Report

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for Package ID: CP-12-12-F

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Source Facility:

Location Facility:

Shipment #:

Radioactive Package Detail

Waste Category: WC3	snm Waste?:	Thermal Power (w/cu.m.):	1.43160E-03
Combustible Flag:	Shielding:	Neutron Dose Rate (mrem/hr):	
Exceeds ISB Limit: N	Handling: C	Contact Dose Rate (mrem/hr):	2.00000E+01
NRC Class: C	RSWIMS Container Cnt: 1	Tot Pe-Ci:	3.61000E-04
	Excluded from DE-Ci:	ICRP 71 DE-Ci:	3.61302E-04

VOC/Hydrogen Gas Diffusion Detail

H2 Diffusion Release Date:

VOC Hold?:

VOC Resample Date:

Current Location Information

Facility ID: 4718	Tier Level:	Loc Beg Coordinates - N:
Trench / Unit:	Tier Position:	W:
Module:	GPS Data Flag:	Loc End Coordinates - N:
		W:

Isotope Information

<u>Isotope Number</u>	<u>Isotope Name</u>	<u>Isotope Activity (Ci)</u>
7	Cs-134	6.46000E-07
8	Cs-137	3.27000E-03
13	Co-60	3.41000E-06
56	Na-22	3.21000E-07
97	Pu-240	3.61000E-04

Solid Waste Information and Tracking System

Container Listing Report

for Package ID: CP-12-12-F

Source Facility:

Location Facility:

Shipment #:

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Waste Component Records

<u>Component ID</u>	<u>Component Text</u>	<u>PPM</u>	<u>Weight (kg)</u>	<u>Weight %</u>
7440-23-5	SODIUM		0.6540	6
GCMETAL	METAL (NONHAZARDOUS)		10.2460	94
			10.9000	

## Solid Waste Information and Tracking System

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## Container Listing Report

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for Package ID: CP-12-13-F

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Source Facility:

Location Facility:

Shipment #:

Package ID: CP-12-13-F	Secondary Pkg ID: 95-18	Accumulation Date: 06/24/2009
Waste Type: D LLW	Phys State Cd: S	Deadline Date: 09/21/2009
Sec Waste Type: LLW	UHC Determination:	Ship Date:
Encasement/HIC#:	UHC's Applicable:	TSD Receive Date:
Profile / Rev#: TBD - 00	NFPA < 93.3C:	TSD Accept Date:
WSRd / Rev #: -	Storage Category:	Disposal Date:
CCP Control?:		

Routine Status: 100 Non-Routine / Other

Container Type / Descr: DM / 5 GALLON	Container Empty Tare Wt. (kg): 2.3000
Container Volume (cu. meters): 0.0189	Waste Weight (kg): 10.9000
Labpack Flag: N	Container Gross Wt. (kg): 13.2000
Container Contents: BLTC DRIP CUP (ESTIMATE < 1 GALLON SODIUM) IN 5 GALLON STEEL CAN	

SWO Comments:

Generator Information

Generating Company: CHPRC CH2M HILL PLATEAU REMEDIATION CO.

Generator ID: 0092501 Generator Group: FFTF

Source Facility: 4718

Generator: RJ SWAN

Generator Comments: ISOTOPICS AND WEIGHTS ARE ESTIMATES. ADDITIONAL REVIEW AND CHARACTERIZATION WILL BE DONE PRIOR TO TRANSPORT. RJS 7/9/12. 400 AREA TSD PROFILE DEVELOPED FOR TSD ACCEPTANCE AT THE 400 AREA INTERIM STORAGE.AREA (ISA).

Solid Waste Information and Tracking System  
Container Listing Report  
for Package ID: CP-12-13-F  
Source Facility:  
Location Facility:  
Shipment #:

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Hazardous Package Detail

Container Status: Full Flashpoint: N/A pH Value: >12.5 Subpart CC Flag: NA  
DW Numbers: D001 D003

RCRA Reporting

ADWR Stream Description: Sodium Metal -  
Designation Code: DW  
Source Code: G19 Other one-time or intermittent process  
Comment: Decommissioning and Deactivation  
Form Code: W319 Other inorganic solids, specify in comments  
Comment: Sodium Wetted Piping  
Origin Code:  
Residual Mgmt Method:  
Comment:  
Management Method:  
Comment:  
Certification Group:  
Reportable CERCLA?:

Pre-2007 Reporting

Waste Stream: Offsite TSD Waste Stream: RCRA Designated Date:

PCB Package Detail:

PCB Type: PCB Source Concentration (PPM):  
PCB Subtype: PCB Waste Weight (kg):  
PCB Contents: Removed from Service:

## Solid Waste Information and Tracking System

SWIR310

## Container Listing Report

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for Package ID: CP-12-13-F

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Source Facility:

Location Facility:

Shipment #:

Radioactive Package Detail

Waste Category: WC3	snm Waste?:	Thermal Power (w/cu.m.):	1.43160E-03
Combustible Flag:	Shielding:	Neutron Dose Rate (mrem/hr):	
Exceeds ISB Limit: N	Handling: C	Contact Dose Rate (mrem/hr):	2.00000E+01
NRC Class: C	RSWIMS Container Cnt: 1	Tot Pe-Ci:	3.61000E-04
	Excluded from DE-Ci:	ICRP 71 DE-Ci:	3.61302E-04

VOC/Hydrogen Gas Diffusion Detail

H2 Diffusion Release Date:	VOC Hold?:	VOC Resample Date:
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Current Location Information

Facility ID: 4718	Tier Level:	Loc Beg Coordinates - N:
Trench / Unit:	Tier Position:	W:
Module:	GPS Data Flag:	Loc End Coordinates - N:
		W:

Isotope Information

<u>Isotope Number</u>	<u>Isotope Name</u>	<u>Isotope Activity (Ci)</u>
7	Cs-134	6.46000E-07
8	Cs-137	3.27000E-03
13	Co-60	3.41000E-06
56	Na-22	3.21000E-07
97	Pu-240	3.61000E-04



Solid Waste Information and Tracking System

Container Listing Report

for Package ID: CP-12-13-F

Source Facility:

Location Facility:

Shipment #:

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Waste Component Records

<u>Component ID</u>	<u>Component Text</u>	<u>PPM</u>	<u>Weight (kg)</u>	<u>Weight %</u>
7440-23-5	SODIUM		0.6540	6
GCMETAL	METAL (NONHAZARDOUS)		10.2460	94
			10.9000	

## Solid Waste Information and Tracking System

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## Container Listing Report

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for Package ID: CP-12-14-F

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Source Facility:

Location Facility:

Shipment #:

Package ID: CP-12-14-F	Secondary Pkg ID: 96-1	Accumulation Date: 06/24/2009
Waste Type: D LLW	Phys State Cd: S	Deadline Date: 09/21/2009
Sec Waste Type: LLW	UHC Determination:	Ship Date:
Encasement/HIC#:	UHC's Applicable:	TSD Receive Date:
Profile / Rev#: TBD - 00	NFPA < 93.3C:	TSD Accept Date:
WSRd / Rev #: -	Storage Category:	Disposal Date:
CCP Control?:		

Routine Status: 100 Non-Routine / Other

Container Type / Descr: DM / 30 GALLON	Container Empty Tare Wt. (kg): 16.0000
Container Volume (cu. meters): 0.1136	Waste Weight (kg): 63.3000
Labpack Flag: N	Container Gross Wt. (kg): 79.3000
Container Contents: BLTC ARGON SYSTEM PLEATED FIBERGLASS AEROSOLE FILTER (ESTIMATE < 1.3 GALLON SODIUM) IN 30 GALLON STEEL DRUM	

SWO Comments:

Generator Information

Generating Company: CHPRC CH2M HILL PLATEAU REMEDIATION CO.	Generator ID: 0092501	Generator Group: FFTF
Source Facility: 4718	Generator: RJ SWAN	
Generator Comments: ISOTOPICS AND WEIGHTS ARE ESTIMATES. ADDITIONAL REVIEW AND CHARACTERIZATION WILL BE DONE PRIOR TO TRANSPORT. RJS 6/28/12. 400 AREA TSD PROFILE DEVOLPED FOR TSD ACCEPTANCE AT THE 400 AREA INTERIM STORAGE.AREA (ISA).		

Solid Waste Information and Tracking System

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for Package ID: CP-12-14-F

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Source Facility:

Location Facility:

Shipment #:

Hazardous Package Detail

Container Status: Full

Flashpoint: N/A

pH Value: >12.5

Subpart CC Flag: NA

DW Numbers: D001 D003

RCRA Reporting

ADWR Stream Description: Sodium Metal -

Designation Code: DW

Source Code: G19 Other one-time or intermittent process

Comment: Decommissioning and Deactivation

Form Code: W319 Other inorganic solids, specify in comments

Comment: Sodium Wetted Piping

Origin Code:

Residual Mgmt Method:

Comment:

Management Method:

Comment:

Certification Group:

Reportable CERCLA?:

Pre-2007 Reporting

Waste Stream:

Offsite TSD Waste Stream:

RCRA Designated Date:

PCB Package Detail:

PCB Type:

PCB Source Concentration (PPM):

PCB Subtype:

PCB Waste Weight (kg):

PCB Contents:

Removed from Service:

## Solid Waste Information and Tracking System

SWIR310

## Container Listing Report

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for Package ID: CP-12-14-F

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Source Facility:

Location Facility:

Shipment #:

Radioactive Package Detail

Waste Category: WC3	snm Waste?:	Thermal Power (w/cu.m.):	3.09508E-04
Combustible Flag:	Shielding:	Neutron Dose Rate (mrem/hr):	
Exceeds ISB Limit: N	Handling: C	Contact Dose Rate (mrem/hr):	2.00000E+01
NRC Class: A	RSWIMS Container Cnt: 1	Tot Pe-Ci:	4.69000E-04
	Excluded from DE-Ci:	ICRP 71 DE-Ci:	4.69392E-04

VOC/Hydrogen Gas Diffusion Detail

H2 Diffusion Release Date:

VOC Hold?:

VOC Resample Date:

Current Location Information

Facility ID: 4718	Tier Level:	Loc Beg Coordinates - N:
Trench / Unit:	Tier Position:	W:
Module:	GPS Data Flag:	Loc End Coordinates - N:
		W:

Isotope Information

<u>Isotope Number</u>	<u>Isotope Name</u>	<u>Isotope Activity (Ci)</u>
7	Cs-134	8.40000E-07
8	Cs-137	4.25000E-03
13	Co-60	4.43000E-06
56	Na-22	4.17000E-07
97	Pu-240	4.69000E-04

Solid Waste Information and Tracking System

Container Listing Report

for Package ID: CP-12-14-F

Source Facility:

Location Facility:

Shipment #:

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Waste Component Records

<u>Component ID</u>	<u>Component Text</u>	<u>PPM</u>	<u>Weight (kg)</u>	<u>Weight %</u>
7440-23-5	SODIUM		3.7980	6
GCMETAL	METAL (NONHAZARDOUS)		59.5020	94
			63.3000	

Solid Waste Information and Tracking System  
Container Listing Report

for Package ID: CP-12-15-F

Source Facility:

Location Facility:

Shipment #:

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Package ID: CP-12-15-F	Secondary Pkg ID: 0034085	Accumulation Date: 06/24/2009
Waste Type: D LLW	Phys State Cd: S	Deadline Date: 09/21/2009
Sec Waste Type: LLW	UHC Determination:	Ship Date:
Encasement/HIC#:	UHC's Applicable:	TSD Receive Date:
Profile / Rev#: TBD - 00	NFPA < 93.3C:	TSD Accept Date:
WSRd / Rev #: -	Storage Category:	Disposal Date:
CCP Control?:		

Routine Status: 100 Non-Routine / Other

Container Type / Descr: DM / 8 GALLON	Container Empty Tare Wt. (kg): 3.6000
Container Volume (cu. meters): 0.0303	Waste Weight (kg): 17.7000
Labpack Flag: N	Container Gross Wt. (kg): 21.3000
Container Contents: NOTE: 08-03; 2 SODIUM SAMPLE PIPES WRAPPED IN PLASTIC (~<0.1 GALLONS TOTAL SODIUM) IN 8 GALLON STEEL DRUM	

SWO Comments:

Generator Information

Generating Company: CHPRC CH2M HILL PLATEAU REMEDIATION CO.

Source Facility: 4718

Generator Comments: ISOTOPICS AND WEIGHTS ARE ESTIMATES. ADDITIONAL REVIEW AND CHARACTERIZATION WILL BE DONE PRIOR TO  
TRANSPORT. RJS 6/25/12. 400 AREA TSD PROFILE DEVOLPED FOR TSD ACCEPTANCE AT THE 400 AREA INTERIM  
STORAGE.AREA (ISA).

Generator ID: 0092501 Generator Group: FFTF

Generator: RJ SWAN

Solid Waste Information and Tracking System  
Container Listing Report  
for Package ID: CP-12-15-F  
Source Facility:  
Location Facility:  
Shipment #:

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Hazardous Package Detail

Container Status: Full Flashpoint: n/a pH Value: >12.5 Subpart CC Flag: NA  
DW Numbers: D001 D003

RCRA Reporting

ADWR Stream Description: Sodium Metal -  
Designation Code: DW  
Source Code: G19 Other one-time or intermittent process  
Comment: Decommissioning and Deactivation  
Form Code: W319 Other inorganic solids, specify in comments  
Comment: Sodium Wetted Piping  
Origin Code:  
Residual Mgmt Method:  
Comment:  
Management Method:  
Comment:  
Certification Group:  
Reportable CERCLA?:

Pre-2007 Reporting

Waste Stream: Offsite TSD Waste Stream: RCRA Designated Date:

PCB Package Detail:

PCB Type: PCB Source Concentration (PPM):  
PCB Subtype: PCB Waste Weight (kg):  
PCB Contents: Removed from Service:

## Solid Waste Information and Tracking System

SWIR310

## Container Listing Report

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for Package ID: CP-12-15-F

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Source Facility:

Location Facility:

Shipment #:

Radioactive Package Detail

Waste Category: WC3	snm Waste?:	Thermal Power (w/cu.m.):	8.92976E-05
Combustible Flag:	Shielding:	Neutron Dose Rate (mrem/hr):	
Exceeds ISB Limit: N	Handling: C	Contact Dose Rate (mrem/hr):	8.00000E-01
NRC Class: A	RSWIMS Container Cnt: 1	Tot Pe-Ci:	3.61000E-05
	Excluded from DE-Ci:	ICRP 71 DE-Ci:	3.61302E-05

VOC/Hydrogen Gas Diffusion Detail

H2 Diffusion Release Date:	VOC Hold?:	VOC Resample Date:
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Current Location Information

Facility ID: 4718	Tier Level:	Loc Beg Coordinates - N:
Trench / Unit:	Tier Position:	W:
Module:	GPS Data Flag:	Loc End Coordinates - N:
		W:

Isotope Information

<u>Isotope Number</u>	<u>Isotope Name</u>	<u>Isotope Activity (Ci)</u>
7	Cs-134	6.46000E-08
8	Cs-137	3.27000E-04
13	Co-60	3.41000E-07
56	Na-22	3.21000E-08
97	Pu-240	3.61000E-05



## Solid Waste Information and Tracking System

SWIR310

## Container Listing Report

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for Package ID: CP-12-15-F

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Source Facility:

Location Facility:

Shipment #:

Waste Component Records

<u>Component ID</u>	<u>Component Text</u>	<u>PPM</u>	<u>Weight (kg)</u>	<u>Weight %</u>
7440-23-5	SODIUM		1.0620	6
GCMETAL	METAL (NONHAZARDOUS)		16.6380	94
			17.7000	

## Solid Waste Information and Tracking System

SWIR310

## Container Listing Report

05/27/2014 11:30

for Package ID: CP-12-16-F

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Source Facility:

Location Facility:

Shipment #:

Package ID: CP-12-16-F	Secondary Pkg ID: 96	Accumulation Date: 06/24/2009
Waste Type: D LLW	Phys State Cd: S	Deadline Date: 09/21/2009
Sec Waste Type: LLW	UHC Determination:	Ship Date:
Encasement/HIC#:	UHC's Applicable:	TSD Receive Date:
Profile / Rev#: TBD - 00	NFPA < 93.3C:	TSD Accept Date:
WSRd / Rev #: -	Storage Category:	Disposal Date:
CCP Control?:		

Routine Status: 100 Non-Routine / Other

Container Type / Descr: DM / 5 GALLON	Container Empty Tare Wt. (kg): 2.3000
Container Volume (cu. meters): 0.0189	Waste Weight (kg): 10.9000
Labpack Flag: N	Container Gross Wt. (kg): 13.2000
Container Contents: BLTC DRIP CUP (ESTIMATE < 1 GALLON SODIUM) IN 5 GALLON STEEL CAN	

SWO Comments:

Generator Information

Generating Company: CHPRC CH2M HILL PLATEAU REMEDIATION CO.

Generator ID: 0092501 Generator Group: FFTF

Source Facility: 4718

Generator: RJ SWAN

Generator Comments: ISOTOPICS AND WEIGHTS ARE ESTIMATES. ADDITIONAL REVIEW AND CHARACTERIZATION WILL BE DONE PRIOR TO TRANSPORT. RJS 6/27/12, 400 AREA TSD PROFILE DEVELOPED FOR TSD ACCEPTANCE AT THE 400 AREA INTERIM STORAGE AREA (ISA).

Solid Waste Information and Tracking System

Container Listing Report

for Package ID: CP-12-16-F

Source Facility:

Location Facility:

Shipment #:

SWIR310

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Hazardous Package Detail

Container Status: Full

Flashpoint: N/A

pH Value: >12.5

Subpart CC Flag: NA

DW Numbers: D001 D003

RCRA Reporting

ADWR Stream Description: Sodium Metal -

Designation Code: DW

Source Code: G19 Other one-time or intermittent process

Comment: Decommissioning and Deactivation

Form Code: W319 Other inorganic solids, specify in comments

Comment: Sodium Wetted Piping

Origin Code:

Residual Mgmt Method:

Comment:

Management Method:

Comment:

Certification Group:

Reportable CERCLA?:

Pre-2007 Reporting

Waste Stream:

Offsite TSD Waste Stream:

RCRA Designated Date:

PCB Package Detail:

PCB Type:

PCB Source Concentration (PPM):

PCB Subtype:

PCB Waste Weight (kg):

PCB Contents:

Removed from Service:

## Solid Waste Information and Tracking System

SWIR310

## Container Listing Report

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for Package ID: CP-12-16-F

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Source Facility:

Location Facility:

Shipment #:

Radioactive Package Detail

Waste Category: WC3	snm Waste?:	Thermal Power (w/cu.m.):	1.43160E-04
Combustible Flag:	Shielding:	Neutron Dose Rate (mrem/hr):	
Exceeds ISB Limit: N	Handling: C	Contact Dose Rate (mrem/hr):	2.00000E+01
NRC Class: A	RSWIMS Container Cnt: 1	Tot Pe-Ci:	3.61000E-05
	Excluded from DE-Ci:	ICRP 71 DE-Ci:	3.61302E-05

VOC/Hydrogen Gas Diffusion Detail

H2 Diffusion Release Date:	VOC Hold?:	VOC Resample Date:
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Current Location Information

Facility ID: 4718	Tier Level:	Loc Beg Coordinates - N:
Trench / Unit:	Tier Position:	W:
Module:	GPS Data Flag:	Loc End Coordinates - N:
		W:

Isotope Information

<u>Isotope Number</u>	<u>Isotope Name</u>	<u>Isotope Activity (Ci)</u>
7	Cs-134	6.46000E-08
8	Cs-137	3.27000E-04
13	Co-60	3.41000E-07
56	Na-22	3.21000E-08
97	Pu-240	3.61000E-05

## Solid Waste Information and Tracking System

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## Container Listing Report

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for Package ID: CP-12-16-F

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Source Facility:

Location Facility:

Shipment #:

Waste Component Records

<u>Component ID</u>	<u>Component Text</u>	<u>PPM</u>	<u>Weight (kg)</u>	<u>Weight %</u>
7440-23-5	SODIUM		0.6540	6
GCMETAL	METAL (NONHAZARDOUS)		10.2460	94
			10.9000	

## Solid Waste Information and Tracking System

SWIR310

## Container Listing Report

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for Package ID: CP-12-17-F

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Source Facility:

Location Facility:

Shipment #:

Package ID: CP-12-17-F	Secondary Pkg ID: 159	Accumulation Date: 06/24/2009
Waste Type: D LLW	Phys State Cd: S	Deadline Date: 09/21/2009
Sec Waste Type: LLW	UHC Determination:	Ship Date:
Encasement/HIC#:	UHC's Applicable:	TSD Receive Date:
Profile / Rev#: TBD - 00	NFPA < 93.3C:	TSD Accept Date:
WSRd / Rev #: -	Storage Category:	Disposal Date:
CCP Control?:		

Routine Status: 100 Non-Routine / Other

Container Type / Descr:	DM / 208 LITER	Container Empty Tare Wt. (kg):	24.0000
Container Volume (cu. meters):	0.2080	Waste Weight (kg):	123.0000
Labpack Flag:	N	Container Gross Wt. (kg):	147.0000
Container Contents:	BLTC ARGON SYSTEM PLEATED FIBERGLASS AEROSOL FILTER AND FILTER CORE (ESTIMATE < 1.3 GALLON SODIUM) IN 55 GALLON PAINTED YELLOW STEEL DRUM		

SWO Comments:

Generator Information

Generating Company:	CHPRC CH2M HILL PLATEAU REMEDIATION CO.	Generator ID:	0092501	Generator Group:	FFTF
Source Facility:	4718	Generator:	RJ SWAN		
Generator Comments:	ISOTOPICS AND WEIGHTS ARE ESTIMATES. ADDITIONAL REVIEW AND CHARACTERIZATION WILL BE DONE PRIOR TO TRANSPORT. RJS 6/29/12. 400 AREA TSD PROFILE DEVELOPED FOR TSD ACCEPTANCE AT THE 400 AREA INTERIM STORAGE.AREA (ISA).				

Solid Waste Information and Tracking System

Container Listing Report

for Package ID: CP-12-17-F

Source Facility:

Location Facility:

Shipment #:

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Hazardous Package Detail

Container Status: Full

Flashpoint: N/A

pH Value: >12.5

Subpart CC Flag: NA

DW Numbers: D001 D003

RCRA Reporting

ADWR Stream Description: Sodium Metal -

Designation Code: DW

Source Code: G19 Other one-time or intermittent process

Comment: Decommissioning and Deactivation

Form Code: W319 Other inorganic solids, specify in comments

Comment: Sodium Wetted Piping

Origin Code:

Residual Mgmt Method:

Comment:

Management Method:

Comment:

Certification Group:

Reportable CERCLA?:

Pre-2007 Reporting

Waste Stream:

Offsite TSD Waste Stream:

RCRA Designated Date:

PCB Package Detail:

PCB Type:

PCB Source Concentration (PPM):

PCB Subtype:

PCB Waste Weight (kg):

PCB Contents:

Removed from Service:

## Solid Waste Information and Tracking System

SWIR310

## Container Listing Report

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for Package ID: CP-12-17-F

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Source Facility:

Location Facility:

Shipment #:

Radioactive Package Detail

Waste Category: WC3	snm Waste?:	Thermal Power (w/cu.m.):	3.69660E-02
Combustible Flag:	Shielding:	Neutron Dose Rate (mrem/hr):	
Exceeds ISB Limit: C	Handling:	Contact Dose Rate (mrem/hr):	5.00000E-01
NRC Class: C	RSWIMS Container Cnt: 1	Tot Pe-Ci:	2.38000E-03
	Excluded from DE-Ci:	ICRP 71 DE-Ci:	1.50860E-01

VOC/Hydrogen Gas Diffusion Detail

H2 Diffusion Release Date:	VOC Hold?:	VOC Resample Date:
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Current Location Information

Facility ID: 4718	Tier Level:	Loc Beg Coordinates - N:
Trench / Unit:	Tier Position:	W:
Module:	GPS Data Flag:	Loc End Coordinates - N:
		W:

Isotope Information

<u>Isotope Number</u>	<u>Isotope Name</u>	<u>Isotope Activity (Ci)</u>
7	Cs-134	9.70000E-07
8	Cs-137	4.91000E-03
13	Co-60	5.11000E-06
56	Na-22	4.81000E-07
97	Pu-240	2.38000E-03
130	Th-228	2.32000E-01



## Solid Waste Information and Tracking System

SWIR310

## Container Listing Report

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Source Facility:

Location Facility:

Shipment #:

Waste Component Records

<u>Component ID</u>	<u>Component Text</u>	<u>PPM</u>	<u>Weight (kg)</u>	<u>Weight %</u>
7440-23-5	SODIUM		7.3800	6
GCMETAL	METAL (NONHAZARDOUS)		115.6200	94
			123.0000	

Solid Waste Information and Tracking System  
Container Listing Report

for Package ID: CP-12-18-F

Source Facility:

Location Facility:

Shipment #:

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Package ID: CP-12-18-F	Secondary Pkg ID: 57749	Accumulation Date: 08/11/2008
Waste Type: D LLW	Phys State Cd: S	Deadline Date: 11/08/2008
Sec Waste Type: LLW	UHC Determination:	Ship Date:
Encasement/HIC#:	UHC's Applicable:	TSD Receive Date:
Profile / Rev#: TBD - 00	NFPA < 93.3C:	TSD Accept Date:
WSRd / Rev #: -	Storage Category:	Disposal Date:
CCP Control?:		

Routine Status: 100 Non-Routine / Other

Container Type / Descr: DM / 85 GALLON	Container Empty Tare Wt. (kg): 35.4000
Container Volume (cu. meters): 0.3220	Waste Weight (kg): 188.7000
Labpack Flag: N	Container Gross Wt. (kg): 226.8000
Container Contents: FSF SODIUM FILL STATION 7 PIECES OF PIPING AND 1 FILTER (~1.5 GALLONS TOTAL SODIUM) IN ARGON INERTED 85 GALLON DRUM	

SWO Comments:

Generator Information

Generating Company: CHPRC CH2M HILL PLATEAU REMEDIATION CO.

Source Facility: 4718

Generator Comments: ISOTOPICS AND WEIGHTS ARE ESTIMATES. ADDITIONAL REVIEW AND CHARACTERIZATION WILL BE DONE PRIOR TO  
TRANSPORT. RJS 6/29/12. 400 AREA TSD PROFILE DEVELOPED FOR TSD ACCEPTANCE AT THE 400 AREA INTERIM  
STORAGE.AREA (ISA).

Generator ID: 0092501 Generator Group: FFTF

Generator: RJ SWAN

Solid Waste Information and Tracking System

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Container Listing Report

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for Package ID: CP-12-18-F

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Source Facility:

Location Facility:

Shipment #:

Hazardous Package Detail

Container Status: Full

Flashpoint: N/A

pH Value: >12.5

Subpart CC Flag: NA

DW Numbers: D001 D003

RCRA Reporting

ADWR Stream Description: Sodium Metal -

Designation Code: DW

Source Code: G19 Other one-time or intermittent process

Comment: Decommissioning and Deactivation

Form Code: W319 Other inorganic solids, specify in comments

Comment: Sodium Wetted Piping

Origin Code:

Residual Mgmt Method:

Comment:

Management Method:

Comment:

Certification Group:

Reportable CERCLA?:

Pre-2007 Reporting

Waste Stream:

Offsite TSD Waste Stream:

RCRA Designated Date:

PCB Package Detail:

PCB Type:

PCB Source Concentration (PPM):

PCB Subtype:

PCB Waste Weight (kg):

PCB Contents:

Removed from Service:

## Solid Waste Information and Tracking System

SWIR310

## Container Listing Report

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for Package ID: CP-12-18-F

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Source Facility:

Location Facility:

Shipment #:

Radioactive Package Detail

Waste Category: WC3	snm Waste?:	Thermal Power (w/cu.m.):	1.26069E-04
Combustible Flag:	Shielding:	Neutron Dose Rate (mrem/hr):	
Exceeds ISB Limit: N	Handling: C	Contact Dose Rate (mrem/hr):	2.00000E+01
NRC Class: A	RSWIMS Container Cnt: 1	Tot Pe-Ci:	5.41000E-04
	Excluded from DE-Ci:	ICRP 71 DE-Ci:	5.41453E-04

VOC/Hydrogen Gas Diffusion Detail

H2 Diffusion Release Date:	VOC Hold?:	VOC Resample Date:
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Current Location Information

Facility ID: 4718	Tier Level:	Loc Beg Coordinates - N:
Trench / Unit:	Tier Position:	W:
Module:	GPS Data Flag:	Loc End Coordinates - N:
		W:

Isotope Information

<u>Isotope Number</u>	<u>Isotope Name</u>	<u>Isotope Activity (Ci)</u>
7	Cs-134	9.70000E-07
8	Cs-137	4.91000E-03
13	Co-60	5.11000E-06
56	Na-22	4.81000E-07
97	Pu-240	5.41000E-04

## Solid Waste Information and Tracking System

SWIR310

## Container Listing Report

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for Package ID: CP-12-18-F

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Source Facility:

Location Facility:

Shipment #:

Waste Component Records

<u>Component ID</u>	<u>Component Text</u>	<u>PPM</u>	<u>Weight (kg)</u>	<u>Weight %</u>
7440-23-5	SODIUM		11.3220	6
GCMETAL	METAL (NONHAZARDOUS)		177.3780	94
			188.7000	

## Solid Waste Information and Tracking System

SWIR310

## Container Listing Report

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for Package ID: CP-12-19-F

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Source Facility:

Location Facility:

Shipment #:

Package ID:	CP-12-19-F	Secondary Pkg ID:	11-24-92	Accumulation Date:	06/24/2009
Waste Type:	D LLW	Phys State Cd:	S	Deadline Date:	09/21/2009
Sec Waste Type:	LLW	UHC Determination:		Ship Date:	
Encasement/HIC#:		UHC's Applicable:		TSD Receive Date:	
Profile / Rev#:	TBD - 00	NFPA < 93.3C:		TSD Accept Date:	
WSRd / Rev #:	-	Storage Category:		Disposal Date:	
CCP Control?:					

Routine Status: 100 Non-Routine / Other

Container Type / Descr:	DM / 12 GALLON	Container Empty Tare Wt. (kg):	2.3000
Container Volume (cu. meters):	0.0454	Waste Weight (kg):	29.9000
Labpack Flag:	N	Container Gross Wt. (kg):	32.2000
Container Contents:	3 SECONDARY SODIUM SAMPLE TRAINS (DE MINIMIS SODIUM) IN A METAL CAN STAMPED "MODIFIED MIRAX 88 MS24327-28 ST. LOUIS" THIS CAN IS APPROXIMATELY 36" TALL AND SIMILAR IN STYLE TO A 10" DIAMETER PAINT CAN.		

SWO Comments:

Generator Information

Generating Company:	CHPRC CH2M HILL PLATEAU REMEDIATION CO.	Generator ID:	0092501	Generator Group:	FFTF
Source Facility:	4718	Generator:	RJ SWAN		
Generator Comments:	ISOTOPICS AND WEIGHTS ARE ESTIMATES. ADDITIONAL REVIEW AND CHARACTERIZATION WILL BE DONE PRIOR TO TRANSPORT. RJS 7/2/12. 400 AREA TSD PROFILE DEVELOPED FOR TSD ACCEPTANCE AT THE 400 AREA INTERIM STORAGE.AREA (ISA).				

Solid Waste Information and Tracking System

Container Listing Report

for Package ID: CP-12-19-F

Source Facility:

Location Facility:

Shipment #:

SWIR310

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Hazardous Package Detail

Container Status: Full

Flashpoint: N/A

pH Value: >12.5

Subpart CC Flag: NA

DW Numbers: D001 D003

RCRA Reporting

ADWR Stream Description: Sodium Metal -

Designation Code: DW

Source Code: G19 Other one-time or intermittent process

Comment: Decommissioning and Deactivation

Form Code: W319 Other inorganic solids, specify in comments

Comment: Sodium Wetted Piping

Origin Code:

Residual Mgmt Method:

Comment:

Management Method:

Comment:

Certification Group:

Reportable CERCLA?:

Pre-2007 Reporting

Waste Stream:

Offsite TSD Waste Stream:

RCRA Designated Date:

PCB Package Detail:

PCB Type:

PCB Source Concentration (PPM):

PCB Subtype:

PCB Waste Weight (kg):

PCB Contents:

Removed from Service:

Solid Waste Information and Tracking System  
Container Listing Report

for Package ID: CP-12-19-F

Source Facility:

Location Facility:

Shipment #:

SWIR310

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Radioactive Package Detail

Waste Category: WC3	snm Waste?:	Thermal Power (w/cu.m.):	5.95973E-05
Combustible Flag:	Shielding:	Neutron Dose Rate (mrem/hr):	
Exceeds ISB Limit: N	Handling: C	Contact Dose Rate (mrem/hr):	2.00000E+01
NRC Class: A	RSWIMS Container Cnt: 1	Tot Pe-Ci:	3.61000E-05
	Excluded from DE-Ci:	ICRP 71 DE-Ci:	3.61302E-05

VOC/Hydrogen Gas Diffusion Detail

H2 Diffusion Release Date:	VOC Hold?:	VOC Resample Date:
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Current Location Information

Facility ID: 4718	Tier Level:	Loc Beg Coordinates - N:
Trench / Unit:	Tier Position:	W:
Module:	GPS Data Flag:	Loc End Coordinates - N:
		W:

Isotope Information

<u>Isotope Number</u>	<u>Isotope Name</u>	<u>Isotope Activity (Ci)</u>
7	Cs-134	6.46000E-08
8	Cs-137	3.27000E-04
13	Co-60	3.41000E-07
56	Na-22	3.21000E-08
97	Pu-240	3.61000E-05



## Solid Waste Information and Tracking System

SWIR310

## Container Listing Report

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for Package ID: CP-12-19-F

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Source Facility:

Location Facility:

Shipment #:

Waste Component Records

<u>Component ID</u>	<u>Component Text</u>	<u>PPM</u>	<u>Weight (kg)</u>	<u>Weight %</u>
7440-23-5	SODIUM		1.7940	6
GCMETAL	METAL (NONHAZARDOUS)		28.1060	94
			29.9000	

**U.S. ENVIRONMENTAL PROTECTION AGENCY**  
**INSPECTION OF 400 AREA WMU, 440-PAD, AND MASF**  
**DOCUMENTS AND INFORMATION REQUEST**  
**MAY 21, 2014**

**INSPECTION REQUEST NUMBER 2**

Copy of "400 Area WMU Waste Profile Sheet, "dated April 12, 2012.

# 400 Area WMU Waste Profile Sheet

Page 1 of 4

## A. Generator Information

1. Company name: CH2M Hill Plateau Remediation Company
2. Address: US Department of Energy - Hanford Site, Richland, Washington
3. Generator facility: Fast Flux Test Facility, Hanford Site 400 Area
4. Primary Technical Contact: Dave L. Romine email: David\_L\_Romine@rl.gov Phone: (509) 376-1880
5. DOE Contact: Mike S. Collins email: Michael.collins@rl.doe.gov Phone: (509) 376-6536
6. Generator's EPA Identification Number (If profile involves hazardous waste): WA7890008967

## B. General Waste Stream Information

1. Waste stream name: 400 Area Waste Management Unit - Sodium and Potassium Wastes
2. Waste generating process description: Waste stored in the Treatment, Storage, and/or Disposal (TSD) unit consists of Fast Flux Test Facility (FFTF) waste, matrices in existence within the 400 Area prior to the effective date of the 400 Area Waste Management Unit (WMU) RCRA Permit, and wastes generated in association with former FFTF operations currently in storage at other Hanford Facility locations. Contaminated debris includes specialized sodium filled monitoring equipment such as a thorium-yttrium oxygen monitor. The Permit limits the waste stored as being mixed waste.

The 400 Area WMU consists of two storage areas, the Fuel Storage Facility (FSF-Building 403) and the Interim Storage Area (ISA). The FFTF (a liquid-sodium metal cooled research reactor) developed and tested mixed oxide (Pu and U) fuels for the US Department of Energy (DOE) Liquid Metal Fast Breeder Reactor Program. Hallam Reactor Sodium was used for the initial fill of FFTF Fuel Storage Facility.

The waste generating process can include using materials during packaging that will prevent or deter the reaction of the sodium (Na) and the sodium-potassium (NaK) while in storage. These materials can include, but are not limited to fire extinguishing media such as NaX (MSDS# 10884) and inert gases such as argon.

3. Waste Category:

☒ Mixed Low-Level

☐ Hazardous

Mixed low-level waste (MLLW) consists of elemental Na and NaK (D001, D003, WSC2) and contaminated equipment and debris (for example piping, equipment, and components) from FFTF deactivation/decommissioning, surveillance, and maintenance. Based on known chemical properties of Na and NaK, small amounts of concentrated sodium hydroxide (NaOH) or potassium hydroxide (KOH) (D002) and trace amounts of hydrogen may be generated if the Na and NaK contacts water vapor in the air during storage. Packaging of the waste can introduce other chemicals or materials as long as the waste designation is not affected.

Sodium contaminated waste from former FFTF activities stored at other Hanford Site locations could be transferred to the 400 Area WMU for consolidation with the 400 Area generated wastes. Mixed waste transfers to the 400 Area WMU will be conducted under WA7890008967, Hanford Facility RCRA Permit, Part III Operating Unit 16 (Attachment 1).

## C. Physical/Chemical Characterization

1. Physical/Chemical process knowledge. Describe the process knowledge information used for physical/chemical characterization of this waste stream:
  - ☒ Material Safety Data Sheets: As described in Addendum B, Waste Analysis Plan (Reference), Material Safety Data Sheets (MSDS) will be used to characterize waste materials, if available. MSDS are a primary knowledge tool and will be referenced using Hanford Site MSDS number(s).
  - ☒ Mass balance from process inputs: Mass balance from process input information will be used to the extent such data provides a sufficient understanding of waste stream characteristics and constituents. Mass balance or material balance information is based on conservation of mass (i.e., the mass of inputs to a process balance the mass of outputs as products, emissions, and wastes).

# 400 Area WMU Waste Profile Sheet

Page 2 of 4

☒ Historical process and analytical data: Historical FFTF process and analytical data for the waste are the primary methods used for waste characterization. The information will generally be developed from background documents (e.g., interview information, logbooks, procurement records, radiation work packages, procedures, process flow charts, and vendor information); engineering documents and calculations; analytical laboratory analyses; waste designations; container inventory records; and other paperwork.

☒ Physical/chemical characterization varies. Check this box when the characterization strategy varies from container to container: Any combination of the above, MSDS, mass balance, historical process, and analytical data will be used for waste characterization.

2. Physical/chemical analysis. Describe the sampling and analysis performed to characterize this waste stream: No further chemical testing of the 400 Area WMU Na and NaK wastes is planned because of knowledge developed from former FFTF operations. Additional analytical laboratory analyses are also not required to safely store the Na and NaK wastes at the 400 Area WMU.

3. Regulatory status. Check all boxes below that describe the regulatory status of the waste stream:

☒ Federally regulated (RCRA) hazardous waste (40 CFR 261). List all RCRA U, P, F, K or D waste codes that apply to the waste stream; place waste codes that do not apply to all containers in parentheses: (D001-ignitable solid, D002-caustic, and D003-water reactive).

☒ Washington State dangerous waste (WAC 173-303). List all Washington waste codes that apply; place waste codes that do not apply to all containers in parentheses: (WSC2-caustic).

4. Federal land disposal restrictions. Check all boxes that apply:

☒ Waste stream requires treatment to meet land disposal restrictions of 40 CFR Part 268.

If checked, provide the following information:

☒ Non-wastewater ☒ Hazardous debris

5. Waste characteristics. Check any of the boxes for regulated characteristics that apply to the waste stream:

<input type="checkbox"/> Flash point < 38°C	<input type="checkbox"/> Flash point 38°C – < 60°C	<input type="checkbox"/> Flash point 60°C – 93.3°C
<input checked="" type="checkbox"/> Ignitable solid	<input type="checkbox"/> Oxidizer	
<input type="checkbox"/> pH 2 or less	<input checked="" type="checkbox"/> pH 12.5 or greater	
<input type="checkbox"/> Liquid that corrodes steel at a rate greater than or equal to 0.25 inches/year		
<input type="checkbox"/> Reactive cyanide	<input type="checkbox"/> Reactive sulfide	<input checked="" type="checkbox"/> Water Reactive
<input checked="" type="checkbox"/> Explosive, unstable or pyrophoric		<input type="checkbox"/> Generates toxic gases, vapors or fumes

6. Physical state:

<input checked="" type="checkbox"/> Liquid	<input type="checkbox"/> Sludge	<input checked="" type="checkbox"/> Debris	<input checked="" type="checkbox"/> Solid
<input checked="" type="checkbox"/> Powder/Dust	<input type="checkbox"/> Sealed Source	<input type="checkbox"/> Encapsulated	<input type="checkbox"/> Solidified
<input type="checkbox"/> Other; describe:			

7. Liquid form. If the waste stream contains liquid, check all that apply:

☒ Containerized liquid ☐ Absorbed Liquid ☐ Stabilized liquid

8. Other contents: Check any of the following that are components of the waste stream, and provide a description of how the waste acceptance criteria for each are met:

<input type="checkbox"/> Animal carcasses	<input type="checkbox"/> Infectious waste	<input type="checkbox"/> Vegetation	<input type="checkbox"/> Free liquids
<input type="checkbox"/> Chelating agents	<input type="checkbox"/> Organic liquids	<input type="checkbox"/> Asbestiform (Friable)	<input checked="" type="checkbox"/> Particulates
<input checked="" type="checkbox"/> Gases	<input type="checkbox"/> PCBs	<input type="checkbox"/> Explosives	<input checked="" type="checkbox"/> Pyrophorics
<input type="checkbox"/> Beryllium Dust	<input type="checkbox"/> Gloveboxes	<input type="checkbox"/> HEPA or Pre-Filters	<input type="checkbox"/> Other

# 400 Area WMU Waste Profile Sheet

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9. Waste composition. Describe the gross composition/component of the waste stream and all hazardous constituents that contribute to any waste codes or LDR treatment standards.

☒ Check this box if the chemical composition varies greatly from container to container, and provide bounding values or ranges here. Further evaluation will occur on the specific package paperwork as it is provided for highly variable streams.

CAS Number	Chemical constituent	Waste Component	Estimated weight percent <input checked="" type="checkbox"/> Estimated volume percent <input type="checkbox"/>
11135-81-2	Sodium/Potassium	Sodium-potassium alloy (NaK)	22% Na/78% K
7440-23-5	Sodium	Sodium (elemental)	0.0 - 100.0
7440-09-7	Sodium-Potassium	Debris contamination	0.0 - 50.0
7440-23-5	Sodium	Debris contamination	0.0 - 50.0
1310-58-3	Potassium hydroxide	Debris contamination	0.0 - 50.0
1310-73-2	Sodium hydroxide	Debris contamination	0.0 - 50.0
497-19-8	Sodium Carbonate	Constituent in NaX	0.0 - 50.0
8031-18-3	Magnesium Aluminum Silicate	Constituent in NaX	0.0 - 50.0
7440-37-1	Argon gas	Gas environment	0.0 - 50.0
	Metal (nonhazardous)	Debris	0.0 - 100.0
	Paper	Debris	0.0 - 50.0
	Plastic	Debris	0.0 - 50.0
	Rubber	Debris	0.0 - 50.0
	Glass	Debris	0.0 - 50.0
	Cloth/Rags	Debris	0.0 - 50.0
	Wood	Debris	0.0 - 50.0
	Tape	Debris	0.0 - 50.0
	Fiberglass	Debris	0.0 - 50.0
	RTV	Debris	0.0 - 50.0

## D. Radiological Characterization

1. Radiological process knowledge. Describe the source(s) of the radioactive material in this waste stream (i.e., the radiological processes that introduced the radioactive material into the waste stream).

The source of the radioactive material present in the 400 Area WMU MLLW stream is the mixed-oxide (MOX) fuel used in the reactor and associated daughter products and activities in support of the FFTF operations and deactivation. Under normal FFTF operating conditions, the MOX mixture consisted of plutonium oxide ( $\text{PuO}_2$ ) and uranium oxide ( $\text{UO}_2$ ), the Pu being mostly the fissile isotope Pu-239. The U was depleted (i.e., almost entirely U-238 [ $\leq 0.2\%$  U-235]). The maximum Pu fraction in the fuel was 25-30%.

In addition, Cs-137 is expected as a contaminant in the FSF core components pots. Cesium is a fission product that is released from the fuel to the sodium and cover gas systems when fuel pin cladding failure occurs.

Radiological characterization methods could include those items that are checked:

- ☒ Radionuclide material accountability: The content of a given radionuclide could be determined by documented logs detailing the mass or activity of the radionuclide added to and leaving the waste in a controlled process.
- ☒ Radiochemical analysis: Historical knowledge as well as additional isotopic analysis may be used to characterize the waste. If additional analysis is performed, the analytical laboratory test results will be provided with waste container paperwork.
- ☒ Field measurement instruments: Isotopic surveys with field instruments may be used to characterize the waste. The instrumentation selected must be appropriately sensitive and accurate for waste classification. Analysis methods that measure gross activity (i.e., not radionuclide specific) must be used in conjunction with other methods to determine the relative concentration of each suspected radionuclide.

## 400 Area WMU Waste Profile Sheet

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- ☒ **Scaling factors:** Scaling factors may be used to relate the concentration of a readily measured radionuclide to more difficult-to-measure radionuclides. When used, scaling factor development information will be supplied with the waste container paperwork.
- ☒ **Computer models:** Computer modeling could be used in conjunction with other methods for radiological characterization. Computer modeling information and similar analysis, if performed, will be supplied with the waste container paperwork.
- ☒ **Other:** Any combination of the radiological characterization methods described above.

3. Estimated Radiation Dose of package(s) (mSv/hr):

Surface:  $\leq 2.0$  (200.0 mR/hr)      30 cm:  $\leq 1.0$  (100.0 mR/hr)

### E. Packaging

1. Packaging used. Check the applicable boxes.

- ☒ **Drum;** describe size(s): Any size containers, for example 19.0 L (5.0 gal) to 416.0 L (110.0 gal) metal drums.
- ☒ **Metal box;** describe size(s): As described in the 400 Area WMU Permit, Addendum C.
- ☒ **Unique Components:** As described in the 400 Area WMU Permit, Addendum C.
- ☒ **Packaging Materials:** Materials such as sorbents used to absorb free liquids and moisture, and materials to aid in the prevention of reaction, such as NaX fire extinguisher media or argon are used.

2. Maximum container size: The maximum container size is limited by the quantity in the Part A, such that 1,000 gallons is not exceeded in the FSF and 19,000 gallons is not exceeded in the ISA.

3. Describe any liners/protective coatings used to ensure that the container is compatible with the waste: Liners/protective coatings will be used, if needed. The standard liner used at the Hanford Site is the 10-mil nylon-reinforced polyethylene liner. Any combination of container liner/protective coatings that is compatible with the waste can be used.

### F. Reference

WA7890008967, Hanford Facility RCRA Permit, Part III Operating Unit 16, 400 Area WMU  
<http://msc.rf.gov/rapidweb/ENVPRO-RCRA/index.cfm?PageNum=129>

### G. Generator Signatures

To the best of my knowledge, the information provided on this form and the attached documentation is a full, true and accurate description of the waste stream. Willful and deliberate omissions have not been made. All known and suspected hazardous materials have been disclosed.

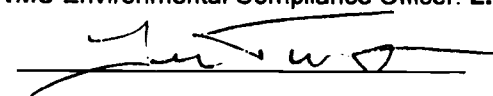
400 Area WMU Authorized Representative: D.L. Romine

Signature: 

Date:

4/12/12

400 Area WMU Environmental Compliance Officer: L.C. Tuott

Signature: 

Date:

4-12-12

**U.S. ENVIRONMENTAL PROTECTION AGENCY**  
**INSPECTION OF 400 AREA WMU, 440-PAD, AND MASF**  
**DOCUMENTS AND INFORMATION REQUEST**  
**MAY 21, 2014**

**INSPECTION REQUEST NUMBER 3**

**Copy of the Training Plans and Completion Dates for Individuals that Perform the Inspections  
(Nuclear Chemical Operators) at the 400 ISA and FSF.**

# Training Plan by HID

Data as of: 05/28/2014  
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Name: Malley, Tim R

Hanford ID: 0061634

Contractor: CHPRC

Job Title: NCO - CP S&M

Course	Course Title	Recert Freq	Req?	Date Taken	Date Needed	Crs Taken	Retrain Crs	Date Sched	Crs# Sched
--- ALL CHPRC Employee Training (1363) ---									
000001	HANFORD GENERAL EMPLOYEE TRAINING - CBT	12	Y	01/20/2014	01/20/2015	000001	000001		
000006	CHPRC - GENERAL EMPLOYEE TRAINING (CGET)	12	Y	01/20/2014	01/20/2015	000006	000006		
600008	ISMS/EMS/VPP OVERVIEW - CBT	0	Y	10/06/2009		600008			
600045	UNIVERSAL WASTE MANAGEMENT	0	Y	07/19/2010		600045			
--- Class 1 Aerial Lift (5519) ---									
043832	AERIAL LIFT SAFETY	60	Y	10/15/2012	10/15/2017	044681	0427AL		
044681	CLASS 1 SELF PROPELLED BOOM SUPPORTED	60	Y	10/15/2012	10/15/2017	044681	044681		
--- CP S&M - Nuclear Chemical Operator (NCO) (1736) ---									
000396	ON-THE-JOB TRAINER FUNDAMENTALS	0	Y	02/11/1994		000390			
000397	ON-THE-JOB EVALUATOR FUNDAMENTALS	0	Y	03/31/1997		000397			
003056	LOCKOUT/TAGOUT AUTHORIZED WORKER PRACTICAL	12	Y	05/20/2014	05/20/2015	310R56	003056		
003057	LOTO-CO-HANGER/VERIFIER/REMOVER PRACTICAL	12	Y	05/20/2014	05/20/2015	310R57	003057		
003101	HANFORD SITE LOCKOUT/TAGOUT FOR CONTROLLING	12	Y	05/20/2014	05/20/2015	00310R	00310R		
004140	BERYLLIUM WORKER TRAINING	24	Y	03/05/2013	03/05/2015	004150	004150		
020010	CRITICALITY SAFETY TRAINING - FISSIONABLE	24	Y	09/18/2012	09/18/2014	020110	020110	09/08/2014	020110
02006G	WASTE MANAGEMENT AWARENESS	0	Y	04/24/2003		035100			
02006L	ASBESTOS AWARENESS	12	Y	05/01/2014	05/23/2015	170057	170063		
020075	HAZARDOUS MATERIALS GENERAL AWARENESS	36	Y	01/04/2012	01/04/2015	020075	020075		
020077	HAZARDOUS MATERIALS DRIVERS TRAINING	36	Y	01/24/2012	01/24/2015	020077	020077		
020134	HANFORD SITE CONFINED SPACE ENTRY	0	Y	08/17/2011		020134			
020147	FALL HAZARD RECOGNITION AND PREVENTION	0	Y	08/24/2009		020147			
020150	LEAD (Pb) WORKER TRAINING (LWT)	12	Y	04/01/2014	04/01/2015	020152	020152		
020193	HEAT STRESS PREVENTION AND FIRST AID - CBT	24	Y	01/11/2013	01/11/2015	020193	020193		
020194	HEARING CONSERVATION - CBT	12	Y	01/20/2014	01/20/2015	020194	020194		
020440	FALL PROTECTION PFAS USERS	24	Y	03/26/2014	03/26/2016	020441	020441		
031220	40-HOUR HAZARDOUS WASTE SITE WORKER	12	Y	06/11/2013	06/11/2014	032020	032020	06/10/2014	032020
031420	3-DAY SUPERVISED FIELD EXPERIENCE	0	Y	04/08/1998		031420			
035100	CONTAINER WASTE MANAGEMENT INITIAL	12	Y	01/20/2014	01/20/2015	035110	035110		
044371	USERS SCAFFOLD SAFETY - CBT	0	Y	11/13/2003		044370			
044391	PORTABLE LADDER SAFETY - CBT	0	Y	06/30/2005		044391			
044400	FIRE WATCH TRAINING	36	Y	03/27/2013	03/27/2016	044400	044400		
044480	ELECTRICAL SAFETY FOR NON-ELECTRICAL	36	Y	12/06/2011	12/06/2014	044481	044480		
044605	EQUIPMENT OPERATION NEAR POWER LINES	0	Y	08/23/2005		044605			
170055	CERTIFIED ASBESTOS WORKER	12	Y	05/01/2014	05/23/2015	170057	170057		
170500	BASIC MEDIC FIRST AID/CPR/AED TRAINING	24	Y	07/15/2013	07/15/2015	170501	170501		
290002	S&M NCO SURVEILLANCE QUALIFICATION - CANYON	24	Y	10/03/2012	10/03/2014	290002	290002		



## Training Plan by HID

Data as of: 05/28/2014

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Name: Malley, Tim R

Hanford ID: 0061634

Contractor: CHPRC

Job Title: NCO - CP S&M

Course	Course Title	Recert Freq	Req?	Data Taken	Data Needed	Crs Taken	Retrain Crs	Data Schd	Crs Schd
290003	S&M NCO SURVEILLANCE	24	Y	08/08/2012	08/08/2014	290003	290003		
290004	S&M NCO WASTE QUAL (HANDLING, PACKAGING, AND	24	Y	08/06/2012	08/06/2014	290004	290004		
290130	TSF FACILITIES & WASTE SITE OVERVIEW -CBT	12	Y	04/01/2014	04/01/2015	290130	290130		
290147	CRITICALITY SAFETY JSO FMH - S&M/2E/W D-4	24	Y	01/09/2013	01/09/2015	290147	290147		
290200	CPS&M ORIENTATION / FEHIC - CBT	12	Y	12/23/2013	12/23/2014	290200	290200		
324033	S&M FACILITY EMERGENCY RESPONSE	12	Y	01/20/2014	01/20/2015	324033	324033		
--- CP S&M - Nuclear Chemical Operator (NCO) (5274) ---									
000001	HANFORD GENERAL EMPLOYEE TRAINING - CBT	12	Y	01/20/2014	01/20/2015	000001	000001		
000006	CHPRC - GENERAL EMPLOYEE TRAINING (CGET)	12	Y	01/20/2014	01/20/2015	000006	000006		
035100	CONTAINER WASTE MANAGEMENT INITIAL	12	Y	01/20/2014	01/20/2015	035110	035110		
290002	S&M NCO SURVEILLANCE QUALIFICATION - CANYON	24	Y	10/03/2012	10/03/2014	290002	290002		
290003	S&M NCO SURVEILLANCE	24	Y	08/08/2012	08/08/2014	290003	290003		
290004	S&M NCO WASTE QUAL (HANDLING, PACKAGING, AND	24	Y	08/06/2012	08/06/2014	290004	290004		
290200	CPS&M ORIENTATION / FEHIC - CBT	12	Y	12/23/2013	12/23/2014	290200	290200		
--- CP S&M Nuclear Chemical Operator (NCO) - Core (1735) ---									
020001	RADIOLOGICAL WORKER II INITIAL TRAINING	24	Y	05/14/2013	05/14/2015	020003	020003		
065911	CORE FUNDAMENTALS - MATHEMATICS	0	Y	04/22/1994		065911			
065912	CORE FUNDAMENTALS - CHEMISTRY	0	Y	04/29/1994		065912			
065914	CORE FUNDAMENTALS - ELECTRICAL	0	Y	04/22/1994		065914			
065915	CORE FUNDAMENTALS - INSTRUMENTATION	0	Y	05/12/1994		065915			
065917	CORE FUNDAMENTALS - MECHANICAL	0	Y	05/19/1994		065917			
080403	WORKPLACE SUBSTANCE ABUSE PROGRAM POLICY	24	Y	12/03/2012	12/03/2014	080403	080403		
600078	CHPRC VEHICLE SPOTTER AWARENESS TRAINING	0	Y	03/30/2011		600078			
--- DSA Annual Briefings (1710) ---									
290615	224-B 2012 DSA ANNUAL BRIEFING	0	Y	08/29/2012		290615			
290616	224-T 2012 DSA ANNUAL BRIEFING	0	Y	08/29/2012		290616			
290617	FFTF 2012 DSA ANNUAL BRIEFING	0	Y	08/29/2012		290617			
290618	REDOX 2012 DSA ANNUAL TRAINING	0	Y	04/18/2013		290618			
290619	U-PLANT 2012 DSA ANNUAL TRAINING	0	Y	04/18/2013		290619			
290620	B-PLANT 2012 DSA ANNUAL TRAINING	0	Y	04/18/2013		290620			
290621	PUREX 2012 DSA ANNUAL TRAINING	0	Y	04/18/2013		290621			
--- Electrical Hazards Breakers (5597) ---									
043820	BREAKER OPERATION ELECTRICAL SAFETY	36	Y	07/16/2013	07/16/2016	043820	043820		
--- Global Harmonization Systems Trng - CBT (GHS-1) ---									
600400	CHPRC GHS HAZARD COMMUNICATION	0	Y	01/11/2013		600400	600400		

## Training Plan by HID

Data as of: 05/28/2014

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Name: Malley, Tim R

Hanford ID: 0061634

Contractor: CHPRC

Job Title: NCO - CP S&M

Course	Course Title	Recert Freq	Req?	Date Taken	Date Needed	Crs Taken	Retrain Crs	Date Sched	Crs# Sched
--- Gov't Vehicle Drivers Awareness & Practical (1507) ---									
145000	DRIVER AWARENESS - PRACTICAL	0	Y	11/19/2010		301846			
301845	DRIVER AWARENESS - CBT	0	Y	08/02/2010		301845			
--- OUO Information Requirements - CBT (1364) ---									
000030	OFFICIAL USE ONLY INFORMATION REQUIREMENTS -	12	Y	01/20/2014	01/20/2015	000030	000030		
--- RESP - Bottle Cart Operator (5705) ---									
020047	BOTTLE CART SUPPLIED AIR SYSTEM OPERATOR	12	Y	05/14/2014	05/14/2015	02R047	02R047		
020066	RESPIRATORY KNOWLEDGE-BASED INITIAL	12	Y	05/14/2014	05/14/2015	02R066	02R066		
--- RESP - Issuer (5707) ---									
020066	RESPIRATORY KNOWLEDGE-BASED INITIAL	12	Y	05/14/2014	05/14/2015	02R066	02R066		
020104	RESPIRATORY PROTECTION ISSUER TRAINING	12	Y	09/17/2013	09/17/2014	020104	020104	08/11/2014	020104
--- RESP - MSA Adv 200 (5690) ---									
020044	QUANTITATIVE MASK FIT	12	Y	05/14/2014	05/14/2015	020044	020044		
020066	RESPIRATORY KNOWLEDGE-BASED INITIAL	12	Y	05/14/2014	05/14/2015	02R066	02R066		
020542	MSA ADVANTAGE 200 1/2 FACE AIR PURIFYING	12	Y	05/14/2014	05/14/2015	02R542	02R542		
--- RESP - MSA MMHK (5702) ---									
020044	QUANTITATIVE MASK FIT	12	Y	05/14/2014	05/14/2015	020044	020044		
020066	RESPIRATORY KNOWLEDGE-BASED INITIAL	12	Y	05/14/2014	05/14/2015	02R066	02R066		
020527	MSA ULTRA ELITE AIR PURIFYING RESPIRATOR (APR)	12	Y	05/14/2014	05/14/2015	02R527	02R527		
020532	MSA MMK PAPR FACEPIECE	12	Y	05/14/2014	05/14/2015	02R532	02R532		
--- RESP - MSA TL (5694) ---									
020044	QUANTITATIVE MASK FIT	12	Y	05/14/2014	05/14/2015	020044	020044		
020066	RESPIRATORY KNOWLEDGE-BASED INITIAL	12	Y	05/14/2014	05/14/2015	02R066	02R066		
020525	MSA TL PAPR FACEPIECE / HOOD	12	Y	05/14/2014	05/14/2015	02R525	02R525		
020527	MSA ULTRA ELITE AIR PURIFYING RESPIRATOR (APR)	12	Y	05/14/2014	05/14/2015	02R527	02R527		
--- Respiratory Issuer QC - CPS&M (1174-5) ---									
020066	RESPIRATORY KNOWLEDGE-BASED INITIAL	12	Y	05/14/2014	05/14/2015	02R066	02R066		
020104	RESPIRATORY PROTECTION ISSUER TRAINING	12	Y	09/17/2013	09/17/2014	020104	020104	08/11/2014	020104
290210	CP S&M RESPIRATORY PROTECTION ISSUER	0	Y	01/02/2013		290210			
--- S&M FACILITY EMERGENCY RESPONSE ORGANIZATION (FERO) (4670) ---									
324033	S&M FACILITY EMERGENCY RESPONSE	12	Y	01/20/2014	01/20/2015	324033	324033		
--- Temp Radiological Containments (5676) ---									
020729	INSTALLATION, INSPECTION AND REMOVAL OF	0	Y	05/13/2003		020729			

## Training Plan by HID

Data as of: 05/28/2014

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Name: Malley, Tim R

Hanford ID: 0061634

Contractor: CHPRC

Job Title: NCO - CP S&M

<u>Course</u>	<u>Course Title</u>	<u>Recert</u> <u>Freq</u>	<u>Req?</u>	<u>Date</u> <u>Taken</u>	<u>Date</u> <u>Needed</u>	<u>Crs</u> <u>Taken</u>	<u>Retrain</u> <u>Crs</u>	<u>Date</u> <u>Sched</u>	<u>Crs#</u> <u>Sched</u>
<b>Medical Schedule Dates</b>									
<u>Last Exam</u> <u>Date</u>	<u>Next Exam</u> <u>Date</u>	<u>Program</u>	<u>Status</u>	<u>Clearance Date</u>	<u>Expiration Date</u>				
04/10/2014	04/10/2014	RESP	CLEARED	04/10/2014	04/10/2015				
<b>Dosimetry Schedule Dates</b>									
<u>Exam Type and Description</u>	<u>Exam Date</u>	<u>Exam Time</u>	<u>Last Exam Date</u>						

# Training Plan by HID

Data as of: 05/28/2014

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Name: Older, Deborah S Hanford ID: 0067354 Contractor: CHPRC

Job Title: NCO - CP S&M

Course	Course Title	Recert Freq	Req?	Date Taken	Date Needed	Crs Taken	Retrain Crs	Date Sched	Crs# Sched
--- ALL CHPRC Employee Training (1363) ---									
000001	HANFORD GENERAL EMPLOYEE TRAINING - CBT	12	Y	08/07/2013	08/07/2014	000001	000001		
000006	CHPRC - GENERAL EMPLOYEE TRAINING (CGET)	12	Y	08/07/2013	08/07/2014	000006	000006		
600008	ISMS/EMS/VPP OVERVIEW - CBT	0	Y	10/12/2009		600008			
600045	UNIVERSAL WASTE MANAGEMENT	0	Y	07/13/2010		600045			
--- CP S&M - Nuclear Chemical Operator (NCO) (1736) ---									
000396	ON-THE-JOB TRAINER FUNDAMENTALS	0	Y	11/18/1993		000390			
000397	ON-THE-JOB EVALUATOR FUNDAMENTALS	0	Y	10/09/2012		000397			
003056	LOCKOUT/TAGOUT AUTHORIZED WORKER PRACTICAL	12	Y	06/18/2013	06/18/2014	310R56	003056		
003057	LOTO-CO-HANGER/VERIFIER/REMOVER PRACTICAL	12	Y	06/18/2013	06/18/2014	310R57	003057		
003101	HANFORD SITE LOCKOUT/TAGOUT FOR CONTROLLING	12	Y	06/18/2013	06/18/2014	00310R	00310R	06/17/2014	00310R
004140	BERYLLIUM WORKER TRAINING	24	Y	02/13/2013	02/13/2015	004150	004150		
020010	CRITICALITY SAFETY TRAINING - FISSIONABLE	24	Y	08/13/2012	08/13/2014	020110	020110	08/04/2014	020110
02006G	WASTE MANAGEMENT AWARENESS	0	Y	02/13/2002		035100			
02006L	ASBESTOS AWARENESS	12	Y	03/18/2014	03/19/2015	170057	170063		
020075	HAZARDOUS MATERIALS GENERAL AWARENESS	36	Y	04/17/2013	04/17/2016	020075	020075		
020077	HAZARDOUS MATERIALS DRIVERS TRAINING	36	Y	06/13/2013	06/13/2016	020077	020077		
020134	HANFORD SITE CONFINED SPACE ENTRY	0	Y	08/26/2011		020134			
020147	FALL HAZARD RECOGNITION AND PREVENTION	0	Y	02/10/1999		020140			
020150	LEAD (Pb) WORKER TRAINING (LWT)	12	Y	08/07/2013	08/07/2014	020152	020152		
020193	HEAT STRESS PREVENTION AND FIRST AID - CBT	24	Y	08/07/2013	08/07/2015	020193	020193		
020194	HEARING CONSERVATION - CBT	12	Y	08/07/2013	08/07/2014	020194	020194		
020440	FALL PROTECTION PFAS USERS	24	Y	12/05/2013	12/05/2015	020441	020441		
031220	40-HOUR HAZARDOUS WASTE SITE WORKER	12	Y	03/11/2014	03/11/2015	032020	032020		
031420	3-DAY SUPERVISED FIELD EXPERIENCE	0	Y	05/22/2003		031420			
035100	CONTAINER WASTE MANAGEMENT INITIAL	12	Y	08/07/2013	08/07/2014	035110	035110		
044371	USERS SCAFFOLD SAFETY - CBT	0	Y	10/01/2003		044371			
044391	PORTABLE LADDER SAFETY - CBT	0	Y	06/30/2005		044391			
044400	FIRE WATCH TRAINING	36	Y	12/05/2013	12/05/2016	044400	044400		
044480	ELECTRICAL SAFETY FOR NON-ELECTRICAL	36	Y	04/29/2013	04/29/2016	044480	044480		
044605	EQUIPMENT OPERATION NEAR POWER LINES	0	Y	08/23/2005		044605			
170055	CERTIFIED ASBESTOS WORKER	12	Y	03/18/2014	03/19/2015	170057	170057		
170500	BASIC MEDIC FIRST AID/CPR/AED TRAINING	24	Y	02/04/2013	02/04/2015	170501	170501		
290002	S&M NCO SURVEILLANCE QUALIFICATION - CANYON	24	Y	08/10/2012	08/10/2014	290002	290002		
290003	S&M NCO SURVEILLANCE	24	Y	08/10/2012	08/10/2014	290003	290003		
290004	S&M NCO WASTE QUAL (HANDLING, PACKAGING, AND	24	Y	10/03/2012	10/03/2014	290004	290004		
290130	TSD FACILITIES & WASTE SITE OVERVIEW - CBT	12	Y	12/03/2013	12/03/2014	290130	290130		

## Training Plan by HID

Data as of: 05/28/2014  
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Name: Older, Deborah S      Hanford ID: 0067354      Contractor: CHPRC  
Job Title: NCO - CP S&M

Course	Course Title	Recert Freq	Req?	Date Taken	Date Needed	Crs Taken	Retrain Crs	Date Sched	Crs# Sched
290147	CRITICALITY SAFETY JSO FMH - S&M/2E/W D-4	24	Y	09/24/2012	09/24/2014	290147	290147		
290200	CPS&M ORIENTATION / FEHIC - CBT	12	Y	08/07/2013	08/07/2014	290200	290200		
324033	S&M FACILITY EMERGENCY RESPONSE	12	Y	08/07/2013	08/07/2014	324033	324033		
--- CP S&M - Nuclear Chemical Operator (NCO) (5274) ---									
000001	HANFORD GENERAL EMPLOYEE TRAINING - CBT	12	Y	08/07/2013	08/07/2014	000001	000001		
000006	CHPRC - GENERAL EMPLOYEE TRAINING (CGET)	12	Y	08/07/2013	08/07/2014	000006	000006		
035100	CONTAINER WASTE MANAGEMENT INITIAL	12	Y	08/07/2013	08/07/2014	035110	035110		
290002	S&M NCO SURVEILLANCE QUALIFICATION - CANYON	24	Y	08/10/2012	08/10/2014	290002	290002		
290003	S&M NCO SURVEILLANCE	24	Y	08/10/2012	08/10/2014	290003	290003		
290004	S&M NCO WASTE QUAL (HANDLING, PACKAGING, AND	24	Y	10/03/2012	10/03/2014	290004	290004		
290200	CPS&M ORIENTATION / FEHIC - CBT	12	Y	08/07/2013	08/07/2014	290200	290200		
--- CP S&M Nuclear Chemical Operator (NCO) - Core (1735) ---									
020001	RADIOLOGICAL WORKER II INITIAL TRAINING	24	Y	01/31/2013	01/31/2015	020003	020003		
065911	CORE FUNDAMENTALS - MATHEMATICS	0	Y	08/05/1994		065911			
065912	CORE FUNDAMENTALS - CHEMISTRY	0	Y	08/12/1994		065912			
065914	CORE FUNDAMENTALS - ELECTRICAL	0	Y	08/19/1994		065914			
065915	CORE FUNDAMENTALS - INSTRUMENTATION	0	Y	08/25/1994		065915			
065917	CORE FUNDAMENTALS - MECHANICAL	0	Y	09/02/1994		065917			
080403	WORKPLACE SUBSTANCE ABUSE PROGRAM POLICY	24	Y	12/03/2013	12/03/2015	080403	080403		
600078	CHPRC VEHICLE SPOTTER AWARENESS TRAINING	0	Y	01/11/2011		600078			
--- DSA Annual Briefings (1710) ---									
290615	224-B 2012 DSA ANNUAL BRIEFING	0	Y	08/29/2012		290615			
290616	224-T 2012 DSA ANNUAL BRIEFING	0	Y	08/29/2012		290616			
290617	FFTF 2012 DSA ANNUAL BRIEFING	0	Y	08/29/2012		290617			
290618	REDOX 2012 DSA ANNUAL TRAINING	0	Y	04/11/2013		290618			
290619	U-PLANT 2012 DSA ANNUAL TRAINING	0	Y	04/11/2013		290619			
290620	B-PLANT 2012 DSA ANNUAL TRAINING	0	Y	04/11/2013		290620			
290621	PUREX 2012 DSA ANNUAL TRAINING	0	Y	04/11/2013		290621			
--- Global Harmonization Systems Trng - CBT (GHS-1) ---									
600400	CHPRC GHS HAZARD COMMUNICATION	0	Y	01/21/2013		600400	600400		
--- Gov't Vehicle Drivers Awareness & Practical (1507) ---									
145000	DRIVER AWARENESS - PRACTICAL	0	Y	07/23/2010		301846			
301845	DRIVER AWARENESS - CBT	0	Y	06/28/2010		301845			
--- OUO Information Requirements - CBT (1364) ---									
000030	OFFICIAL USE ONLY INFORMATION REQUIREMENTS -	12	Y	08/07/2013	08/07/2014	000030	000030		

## Training Plan by HID

Data as of: 05/28/2014  
Page 3 of 3

Name: Older, Deborah S      Hanford ID: 0067354      Contractor: CHPRC  
Job Title: NCO - CP S&M

Course	Course Title	Recert Freq	Req?	Date Taken	Date Needed	Crs Taken	Retrain Crs	Date Sched	Crs# Sched
--- RESP - Issuer (5707) ---									
020066	RESPIRATORY KNOWLEDGE-BASED INITIAL	12	Y	02/06/2014	02/06/2015	02R066	02R066		
020104	RESPIRATORY PROTECTION ISSUER TRAINING	12	Y	11/19/2013	11/19/2014	020104	020104	10/20/2014	020104
--- RESP - MSA Adv 200 (5690) ---									
020044	QUANTITATIVE MASK FIT	12	Y	02/06/2014	02/06/2015	020044	020044		
020066	RESPIRATORY KNOWLEDGE-BASED INITIAL	12	Y	02/06/2014	02/06/2015	02R066	02R066		
020542	MSA ADVANTAGE 200 1/2 FACE AIR PURIFYING	12	Y	02/06/2014	02/06/2015	02R542	02R542		
--- RESP - MSA TL (5694) ---									
020044	QUANTITATIVE MASK FIT	12	Y	02/06/2014	02/06/2015	020044	020044		
020066	RESPIRATORY KNOWLEDGE-BASED INITIAL	12	Y	02/06/2014	02/06/2015	02R066	02R066		
020525	MSA TL PAPR FACEPIECE / HOOD	12	Y	02/06/2014	02/06/2015	02R525	02R525		
020527	MSA ULTRA ELITE AIR PURIFYING RESPIRATOR (APR)	12	Y	02/06/2014	02/06/2015	02R527	02R527		
--- Respiratory Issuer QC - CPS&M (1174-5) ---									
020066	RESPIRATORY KNOWLEDGE-BASED INITIAL	12	Y	02/06/2014	02/06/2015	02R066	02R066		
020104	RESPIRATORY PROTECTION ISSUER TRAINING	12	Y	11/19/2013	11/19/2014	020104	020104	10/20/2014	020104
290210	CP S&M RESPIRATORY PROTECTION ISSUER	0	Y	03/25/2013		290210			
--- S&M FACILITY EMERGENCY RESPONSE ORGANIZATION (FERO (4670) ---									
324033	S&M FACILITY EMERGENCY RESPONSE	12	Y	08/07/2013	08/07/2014	324033	324033		
--- Temp Radiological Containments (5676) ---									
020729	INSTALLATION, INSPECTION AND REMOVAL OF	0	Y	05/15/2000		020729			

### Medical Schedule Dates

Last Exam Date	Next Exam Date	Program	Status	Clearance Date	Expiration Date
12/03/2013	07/17/2014	RESP	CLEARED	12/03/2013	12/03/2014

### Dosimetry Schedule Dates

Exam Type and Description	Exam Date	Exam Time	Last Exam Date
C CHEST COUNT	04/09/2014	0800	04/09/2014
WC COAXIAL WHOLE BODY	04/09/2014	0800	04/09/2014

## Training Plan by HID

Data as of: 05/28/2014

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Name: Ramos, Jose L

Hanford ID: 0061769

Contractor: CHPRC

Job Title: NCO - CP S&M

Course	Course Title	Recert Freq	Req?	Date Taken	Date Needed	Crz Taken	Retrain Crz	Date Sched	Crz# Sched
--- ALL CHPRC Employee Training (1363) ---									
000001	HANFORD GENERAL EMPLOYEE TRAINING - CBT	12	Y	01/09/2014	01/09/2015	000001	000001		
000006	CHPRC - GENERAL EMPLOYEE TRAINING (CGET)	12	Y	01/20/2014	01/20/2015	000006	000006		
600008	ISMS/EMS/VPP OVERVIEW - CBT	0	Y	10/08/2009		600008			
600045	UNIVERSAL WASTE MANAGEMENT	0	Y	07/13/2010		600045			
--- Class 1 Aerial Lift (5519) ---									
043832	AERIAL LIFT SAFETY	60	Y	03/16/2011	03/16/2016	042720	0427AL		
044681	CLASS 1 SELF PROPELLED BOOM SUPPORTED	60	Y				044681		
--- Class 3 Aerial Lift (5521) ---									
043832	AERIAL LIFT SAFETY	60	Y	03/16/2011	03/16/2016	042720	0427AL		
04468B	CLASS 3 SELF-PROPELLED PLATFORM AERIAL LIFT	60	Y				04468B		
--- CP S&M - Nuclear Chemical Operator (NCO) (1736) ---									
000396	ON-THE-JOB TRAINER FUNDAMENTALS	0	Y	09/14/1989		000385			
000397	ON-THE-JOB EVALUATOR FUNDAMENTALS	0	Y	05/20/1997		000397			
003056	LOCKOUT/TAGOUT AUTHORIZED WORKER PRACTICAL	12	Y	05/21/2014	05/21/2015	310R56	003056		
003057	LOTO-CO-HANGER/VERIFIER/REMOVER PRACTICAL	12	Y	05/21/2014	05/21/2015	310R57	003057		
00310I	HANFORD SITE LOCKOUT/TAGOUT FOR CONTROLLING	12	Y	05/21/2014	05/21/2015	00310R	00310R		
004140	BERYLLIUM WORKER TRAINING	24	Y	04/23/2013	04/23/2015	004150	004150		
020010	CRITICALITY SAFETY TRAINING - FISSIONABLE	24	Y	02/04/2013	02/04/2015	020110	020110		
02006G	WASTE MANAGEMENT AWARENESS	0	Y	04/17/2002		035100			
02006L	ASBESTOS AWARENESS	12	Y	03/03/2014	03/19/2015	170057	170063		
020075	HAZARDOUS MATERIALS GENERAL AWARENESS	36	Y	11/05/2013	11/05/2016	020075	020075		
020077	HAZARDOUS MATERIALS DRIVERS TRAINING	36	Y	06/04/2013	06/04/2016	020077	020077		
020134	HANFORD SITE CONFINED SPACE ENTRY	0	Y	11/09/2011		020134			
020147	FALL HAZARD RECOGNITION AND PREVENTION	0	Y	11/07/1994		020140			
020150	LEAD (Pb) WORKER TRAINING (LWT)	12	Y	08/23/2013	08/23/2014	020152	020152		
020193	HEAT STRESS PREVENTION AND FIRST AID - CBT	24	Y	07/11/2013	07/11/2015	020193	020193		
020194	HEARING CONSERVATION - CBT	12	Y	07/11/2013	07/11/2014	020194	020194		
020440	FALL PROTECTION PFAS USERS	24	Y	04/30/2014	04/30/2016	020441	020441		
031220	40-HOUR HAZARDOUS WASTE SITE WORKER	12	Y	01/22/2014	01/22/2015	032020	032020		
031420	3-DAY SUPERVISED FIELD EXPERIENCE	0	Y	05/22/2003		031420			
035100	CONTAINER WASTE MANAGEMENT INITIAL	12	Y	01/24/2014	01/24/2015	035110	035110		
044371	USERS SCAFFOLD SAFETY - CBT	0	Y	10/01/2003		044370			
044391	PORTABLE LADDER SAFETY - CBT	0	Y	06/20/2005		044391			
044400	FIRE WATCH TRAINING	36	Y	02/13/2014	02/13/2017	044400	044400		
044480	ELECTRICAL SAFETY FOR NON-ELECTRICAL	36	Y	04/22/2013	04/22/2016	044480	044480		

Data as of: 05/28/2014

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**Name:** Ramos, Jose L

**Hanford ID:** 0061769

**Contractor:** CHPRC

**Job Title:** NCO - CP S&M

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Data as of: 05/28/2014

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**Name:** Ramos, Jose L

**Hanford ID: 0061769**

**Contractor: CHPRC**

**Job Title:** NCO - CP S&M

<u>Course</u>	<u>Course Title</u>	<u>Recurr Freq</u>	<u>Req?</u>	<u>Date Taken</u>	<u>Date Needed</u>	<u>Crs Taken</u>	<u>Retrain Crs</u>	<u>Date Sched</u>	<u>Crs# Sched</u>
600400	CHPRC GHS HAZARD COMMUNICATION	0	Y	02/12/2013		600400	600400		
<b>--- Gov't Vehicle Drivers Awareness &amp; Practical (1507) ---</b>									
145000	DRIVER AWARENESS - PRACTICAL	0	Y	11/01/2010		301846			
301845	DRIVER AWARENESS - CBT	0	Y	06/28/2010		301845			
<b>--- OOU Information Requirements - CBT (1364) ---</b>									
000030	OFFICIAL USE ONLY INFORMATION REQUIREMENTS -	12	Y	11/13/2013	11/13/2014	000030	000030		
<b>--- RESP - Issuer (5707) ---</b>									
020066	RESPIRATORY KNOWLEDGE-BASED INITIAL	12	Y	12/03/2013	12/03/2014	02R066	02R066		
020104	RESPIRATORY PROTECTION ISSUER TRAINING	12	Y	12/10/2013	12/10/2014	020104	020104	11/10/2014	020104
<b>--- RESP - MSA Adv 200 (5690) ---</b>									
020044	QUANTITATIVE MASK FIT	12	Y	12/03/2013	12/03/2014	020044	020044		
020066	RESPIRATORY KNOWLEDGE-BASED INITIAL	12	Y	12/03/2013	12/03/2014	02R066	02R066		
020542	MSA ADVANTAGE 200 1/2 FACE AIR PURIFYING	12	Y	12/03/2013	12/03/2014	02R542	02R542		
<b>--- RESP - MSA MMK (5702) ---</b>									
020044	QUANTITATIVE MASK FIT	12	Y	12/03/2013	12/03/2014	020044	020044		
020066	RESPIRATORY KNOWLEDGE-BASED INITIAL	12	Y	12/03/2013	12/03/2014	02R066	02R066		
020527	MSA ULTRA ELITE AIR PURIFYING RESPIRATOR (APR)	12	Y	12/03/2013	12/03/2014	02R527	02R527		
020532	MSA MMK PAPR FACEPIECE	12	Y	12/03/2013	12/03/2014	02I532	02R532		
<b>--- RESP - MSA TL (5694) ---</b>									
020044	QUANTITATIVE MASK FIT	12	Y	12/03/2013	12/03/2014	020044	020044		
020066	RESPIRATORY KNOWLEDGE-BASED INITIAL	12	Y	12/03/2013	12/03/2014	02R066	02R066		
020525	MSA TL PAPR FACEPIECE / HOOD	12	Y	12/03/2013	12/03/2014	02R525	02R525		
020527	MSA ULTRA ELITE AIR PURIFYING RESPIRATOR (APR)	12	Y	12/03/2013	12/03/2014	02R527	02R527		
<b>--- RESP - SCBA with Scott O-Vista (5710) ---</b>									
020030	SCOTT SCBA	12	Y	12/03/2013	12/03/2014	02R030	02R030		
020044	QUANTITATIVE MASK FIT	12	Y	12/03/2013	12/03/2014	020044	020044		
020066	RESPIRATORY KNOWLEDGE-BASED INITIAL	12	Y	12/03/2013	12/03/2014	02R066	02R066		
020536	SCOTT O-VISTA / AV2000 AIR PURIFYING RESPIRATOR	12	Y	12/03/2013	12/03/2014	02R536	02R536		
<b>--- Respiratory Issuer QC - CPS&amp;M (1174-5) ---</b>									
020066	RESPIRATORY KNOWLEDGE-BASED INITIAL	12	Y	12/03/2013	12/03/2014	02R066	02R066		
020104	RESPIRATORY PROTECTION ISSUER TRAINING	12	Y	12/10/2013	12/10/2014	020104	020104	11/10/2014	020104
290210	CP S&M RESPIRATORY PROTECTION ISSUER	0	Y	03/10/2014		290210			
<b>--- S&amp;M FACILITY EMERGENCY RESPONSE ORGANIZATION (FERO (4670) ---</b>									

## Training Plan by HID

Data as of: 05/28/2014

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Name: Ramos, Jose L

Hanford ID: 0061769

Contractor: CHPRC

Job Title: NCO - CP S&M

Course	Course Title	Recert Freq	Req?	Date Taken	Date Needed	Crs Taken	Retrain Crs	Date Sched	Crs# Sched
324033	S&M FACILITY EMERGENCY RESPONSE	12	Y	04/08/2014	04/08/2015	324033	324033		
--- Temp Radiological Containments (5676) ---									
020729	INSTALLATION, INSPECTION AND REMOVAL OF	0	Y	03/15/2000		020729			

### Medical Schedule Dates

Last Exam Date	Next Exam Date	Program	Status	Clearance Date	Expiration Date
11/11/2013	11/11/2013	RESP	CLEARED	11/11/2013	11/11/2014

### Dosimetry Schedule Dates

Exam Type and Description	Exam Date	Exam Time	Last Exam Date
C CHEST COUNT	04/08/2014	1300	04/08/2014
WC COAXIAL WHOLE BODY	04/08/2014	1300	04/08/2014

## Training Plan by HID

Data as of: 05/28/2014

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Name: Reid, Michael R

Hanford ID: 0107791

Contractor: CHPRC

Job Title: NCO - CP S&M

Course	Course Title	Recert Freq	Req?	Date Taken	Date Needed	Crs Taken	Retrain Crs	Date Sched	Crs# Sched
--- ALL CHPRC Employee Training (1363) ---									
000001	HANFORD GENERAL EMPLOYEE TRAINING - CBT	12	Y	10/16/2013	10/16/2014	000001	000001		
000006	CHPRC - GENERAL EMPLOYEE TRAINING (CGET)	12	Y	10/16/2013	10/16/2014	000006	000006		
600008	ISMS/EMS/VPP OVERVIEW - CBT	0	Y	09/22/2009		600008			
600045	UNIVERSAL WASTE MANAGEMENT	0	Y	07/08/2010		600045			
--- CP S&M - Nuclear Chemical Operator (NCO) (1736) ---									
000396	ON-THE-JOB TRAINER FUNDAMENTALS	0	Y	10/09/2012		000396			
000397	ON-THE-JOB EVALUATOR FUNDAMENTALS	0	Y	10/09/2012		000397			
003056	LOCKOUT/TAGOUT AUTHORIZED WORKER PRACTICAL	12	Y	09/18/2013	09/18/2014	310R56	003056		
003057	LOTO-CO-HANGER/VERIFIER/REMOVER PRACTICAL	12	Y	09/18/2013	09/18/2014	310R57	003057		
003101	HANFORD SITE LOCKOUT/TAGOUT FOR CONTROLLING	12	Y	09/18/2013	09/18/2014	00310R	00310R	08/19/2014	00310R
004140	BERYLLIUM WORKER TRAINING	24	Y	09/16/2013	09/16/2015	004150	004150		
020010	CRITICALITY SAFETY TRAINING - FISSIONABLE	24	Y	10/15/2012	10/15/2014	020110	020110		
02006G	WASTE MANAGEMENT AWARENESS	0	Y	08/13/1998		035100			
02006L	ASBESTOS AWARENESS	12	Y	06/06/2013	06/25/2014	170057	170063		
020075	HAZARDOUS MATERIALS GENERAL AWARENESS	36	Y	07/31/2012	07/31/2015	020075	020075		
020077	HAZARDOUS MATERIALS DRIVERS TRAINING	36	Y	06/04/2013	06/04/2016	020077	020077		
020134	HANFORD SITE CONFINED SPACE ENTRY	0	Y	09/09/2011		020134			
020147	FALL HAZARD RECOGNITION AND PREVENTION	0	Y	07/29/1997		020140			
020150	LEAD (Pb) WORKER TRAINING (LWT)	12	Y	01/24/2014	01/24/2015	020152	020152		
020193	HEAT STRESS PREVENTION AND FIRST AID - CBT	24	Y	11/26/2013	11/26/2015	020193	020193		
020194	HEARING CONSERVATION - CBT	12	Y	11/26/2013	11/26/2014	020194	020194		
020440	FALL PROTECTION PFAS USERS	24	Y	02/13/2013	02/13/2015	020441	020441		
031220	40-HOUR HAZARDOUS WASTE SITE WORKER	12	Y	11/20/2013	11/20/2014	032020	032020		
031420	3-DAY SUPERVISED FIELD EXPERIENCE	0	Y	06/24/2004		031420			
035100	CONTAINER WASTE MANAGEMENT INITIAL	12	Y	10/07/2013	10/07/2014	035110	035110		
044371	USERS SCAFFOLD SAFETY - CBT	0	Y	10/01/2003		044371			
044391	PORTABLE LADDER SAFETY - CBT	0	Y	06/30/2005		044391			
044400	FIRE WATCH TRAINING	36	Y	12/19/2013	12/19/2016	044400	044400		
044480	ELECTRICAL SAFETY FOR NON-ELECTRICAL	36	Y	10/15/2012	10/15/2015	044481	044480		
044605	EQUIPMENT OPERATION NEAR POWER LINES	0	Y	08/09/2005		044605			
170055	CERTIFIED ASBESTOS WORKER	12	Y	06/06/2013	06/25/2014	170057	170057	06/02/2014	170057
170500	BASIC MEDIC FIRST AID/CPR/AED TRAINING	24	Y	12/13/2012	12/13/2014	170501	170501		
290002	S&M NCO SURVEILLANCE QUALIFICATION - CANYON	24	Y	09/16/2012	09/16/2014	290002	290002		
290003	S&M NCO SURVEILLANCE	24	Y	08/28/2012	08/28/2014	290003	290003		
290004	S&M NCO WASTE QUAL (HANDLING, PACKAGING, AND	24	Y	08/06/2012	08/06/2014	290004	290004		
290130	TSD FACILITIES & WASTE SITE OVERVIEW -CBT	12	Y	05/28/2013	05/28/2014	290130	290130		

## Training Plan by HID

Data as of: 05/28/2014

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Name: Reid, Michael R

Hanford ID: 0107791

Contractor: CHPRC

Job Title: NCO - CP S&M

Course	Course Title	Recert Freq	Req?	Date Taken	Date Needed	Crz Taken	Retrain Crz	Date Sched	Crz# Sched
290147	CRITICALITY SAFETY JSO FMH - S&M/2E/W D-4	24	Y	01/09/2013	01/09/2015	290147	290147		
290200	CPS&M ORIENTATION / FEHIC - CBT	12	Y	01/24/2014	01/24/2015	290200	290200		
324033	S&M FACILITY EMERGENCY RESPONSE	12	Y	10/08/2013	10/08/2014	324033	324033		
--- CP S&M - Nuclear Chemical Operator (NCO) (5274) ---									
000001	HANFORD GENERAL EMPLOYEE TRAINING - CBT	12	Y	10/16/2013	10/16/2014	000001	000001		
000006	CHPRC - GENERAL EMPLOYEE TRAINING (CGET)	12	Y	10/16/2013	10/16/2014	000006	000006		
035100	CONTAINER WASTE MANAGEMENT INITIAL	12	Y	10/07/2013	10/07/2014	035110	035110		
290002	S&M NCO SURVEILLANCE QUALIFICATION - CANYON	24	Y	09/16/2012	09/16/2014	290002	290002		
290003	S&M NCO SURVEILLANCE	24	Y	08/28/2012	08/28/2014	290003	290003		
290004	S&M NCO WASTE QUAL (HANDLING, PACKAGING, AND	24	Y	08/06/2012	08/06/2014	290004	290004		
290200	CPS&M ORIENTATION / FEHIC - CBT	12	Y	01/24/2014	01/24/2015	290200	290200		
--- CP S&M Nuclear Chemical Operator (NCO) - Core (1735) ---									
020001	RADIOLOGICAL WORKER II INITIAL TRAINING	24	Y	09/25/2012	09/25/2014	020003	020003	08/27/2014	020003
065911	CORE FUNDAMENTALS - MATHEMATICS	0	Y	11/12/2004		065911			
065912	CORE FUNDAMENTALS - CHEMISTRY	0	Y	12/04/2004		065912			
065914	CORE FUNDAMENTALS - ELECTRICAL	0	Y	11/18/2004		065914			
065915	CORE FUNDAMENTALS - INSTRUMENTATION	0	Y	11/24/2004		065915			
065917	CORE FUNDAMENTALS - MECHANICAL	0	Y	12/12/2004		065917			
080403	WORKPLACE SUBSTANCE ABUSE PROGRAM POLICY	24	Y	11/25/2013	11/25/2015	080403	080403		
600078	CHPRC VEHICLE SPOTTER AWARENESS TRAINING	0	Y	12/09/2010		600078			
--- DSA Annual Briefings (1710) ---									
290615	224-B 2012 DSA ANNUAL BRIEFING	0	Y	08/29/2012		290615			
290616	224-T 2012 DSA ANNUAL BRIEFING	0	Y	08/29/2012		290616			
290617	FFTF 2012 DSA ANNUAL BRIEFING	0	Y	08/29/2012		290617			
290618	REDOX 2012 DSA ANNUAL TRAINING	0	Y	04/11/2013		290618			
290619	U-PLANT 2012 DSA ANNUAL TRAINING	0	Y	04/11/2013		290619			
290620	B-PLANT 2012 DSA ANNUAL TRAINING	0	Y	04/11/2013		290620			
290621	PUREX 2012 DSA ANNUAL TRAINING	0	Y	04/11/2013		290621			
--- Electrical Hazards Breakers (5597) ---									
043820	BREAKER OPERATION ELECTRICAL SAFETY	36	Y	05/08/2013	05/08/2016	043820	043820		
--- Global Harmonization Systems Trng - CBT (GHS-1) ---									
600400	CHPRC GHS HAZARD COMMUNICATION	0	Y	12/14/2012		600400	600400		
--- Gov't Vehicle Drivers Awareness & Practical (1507) ---									
145000	DRIVER AWARENESS - PRACTICAL	0	Y	11/05/2010		301846			
301845	DRIVER AWARENESS - CBT	0	Y	06/28/2010		301845			

## Training Plan by HID

Data as of: 05/28/2014

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Name: Reid, Michael R

Hanford ID: 0107791

Contractor: CHPRC

Job Title: NCO - CP S&M

Course	Course Title	Recert Freq	Req?	Date Taken	Date Needed	Crs Taken	Retrain Crs	Date Sched	Crs# Sched
--- OUO Information Requirements - CBT (1364) ---									
000030	OFFICIAL USE ONLY INFORMATION REQUIREMENTS -	12	Y	01/21/2014	01/21/2015	000030	000030		
--- RESP - Issuer (5707) ---									
020066	RESPIRATORY KNOWLEDGE-BASED INITIAL	12	Y	03/18/2014	03/18/2015	02R066	02R066		
020104	RESPIRATORY PROTECTION ISSUER TRAINING	12	Y	07/23/2013	07/23/2014	020104	020104	07/17/2014	020104
--- RESP - MSA Adv 200 (5690) ---									
020044	QUANTITATIVE MASK FIT	12	Y	03/18/2014	03/18/2015	020044	020044		
020066	RESPIRATORY KNOWLEDGE-BASED INITIAL	12	Y	03/18/2014	03/18/2015	02R066	02R066		
020542	MSA ADVANTAGE 200 1/2 FACE AIR PURIFYING	12	Y	03/18/2014	03/18/2015	02R542	02R542		
--- RESP - MSA TL (5694) ---									
020044	QUANTITATIVE MASK FIT	12	Y	03/18/2014	03/18/2015	020044	020044		
020066	RESPIRATORY KNOWLEDGE-BASED INITIAL	12	Y	03/18/2014	03/18/2015	02R066	02R066		
020525	MSA TL PAPR FACEPIECE / HOOD	12	Y	03/18/2014	03/18/2015	02R525	02R525		
020527	MSA ULTRA ELITE AIR PURIFYING RESPIRATOR (APR)	12	Y	03/18/2014	03/18/2015	02R527	02R527		
--- RESP - SCBA (5703) ---									
020030	SCOTT SCBA	12	Y	03/18/2014	03/18/2015	02R030	02R030		
020044	QUANTITATIVE MASK FIT	12	Y	03/18/2014	03/18/2015	020044	020044		
020066	RESPIRATORY KNOWLEDGE-BASED INITIAL	12	Y	03/18/2014	03/18/2015	02R066	02R066		
020538	SCOTT AV 3000 AIR PURIFYING RESPIRATOR (APR)	12	Y	03/18/2014	03/18/2015	02R538	02R538		
--- Respiratory Issuer QC - CPS&M (1174-5) ---									
020066	RESPIRATORY KNOWLEDGE-BASED INITIAL	12	Y	03/18/2014	03/18/2015	02R066	02R066		
020104	RESPIRATORY PROTECTION ISSUER TRAINING	12	Y	07/23/2013	07/23/2014	020104	020104	07/17/2014	020104
290210	CP S&M RESPIRATORY PROTECTION ISSUER	0	Y	02/19/2013		290210			
--- S&M FACILITY EMERGENCY RESPONSE ORGANIZATION (FERO (4670) ---									
324033	S&M FACILITY EMERGENCY RESPONSE	12	Y	10/08/2013	10/08/2014	324033	324033		

### Medical Schedule Dates

Last Exam Date	Next Exam Date	Program	Status	Clearance Date	Expiration Date
02/24/2014	02/24/2014	RESP	CLEARED	02/24/2014	02/24/2015

## Training Plan by HID

Data as of: 05/28/2014

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### Dosimetry Schedule Dates

<u>Exam Type and Description</u>	<u>Exam Date</u>	<u>Exam Time</u>	<u>Last Exam Date</u>
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## Training Plan by HID

Data as of: 05/28/2014

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Name: Wise, William M

Hanford ID: 0020433

Contractor: CHPRC

Job Title: STD 4/28 - NCO - CP S&M

Course	Course Title	Recert Freq	Req?	Date Taken	Date Needed	Crs Taken	Retrain Crs	Date Sched	Crs# Sched
--- ALL CHPRC Employee Training (1363) ---									
000001	HANFORD GENERAL EMPLOYEE TRAINING - CBT	12	Y	02/19/2014	02/19/2015	000001	000001		
000006	CHPRC - GENERAL EMPLOYEE TRAINING (CGET)	12	Y	02/19/2014	02/19/2015	000006	000006		
600008	ISMS/EMS/VPP OVERVIEW - CBT	0	Y	10/13/2009		600008			
600045	UNIVERSAL WASTE MANAGEMENT	0	Y	07/13/2010		600045			
--- Class 1 Aerial Lift (5519) ---									
043832	AERIAL LIFT SAFETY	60	Y	10/05/2012	10/05/2017	044681	0427AL		
044681	CLASS 1 SELF PROPELLED BOOM SUPPORTED	60	Y	10/05/2012	10/05/2017	044681	044681		
--- CP S&M - Nuclear Chemical Operator (NCO) (1736) ---									
000396	ON-THE-JOB TRAINER FUNDAMENTALS	0	Y	09/27/1994		000390			
000397	ON-THE-JOB EVALUATOR FUNDAMENTALS	0	Y	06/22/1999		000397			
003056	LOCKOUT/TAGOUT AUTHORIZED WORKER PRACTICAL	12	Y	07/10/2013	07/10/2014	310R56	003056		
003057	LOTO-CO-HANGER/VERIFIER/REMOVER PRACTICAL	12	Y	07/10/2013	07/10/2014	310R57	003057		
003101	HANFORD SITE LOCKOUT/TAGOUT FOR CONTROLLING	12	Y	07/10/2013	07/10/2014	00310R	00310R	09/23/2014	00310R
004140	BERYLLIUM WORKER TRAINING	24	Y	08/06/2013	08/06/2015	004150	004150		
020010	CRITICALITY SAFETY TRAINING - FISSIONABLE	24	Y	04/11/2013	04/11/2015	020110	020110		
02006G	WASTE MANAGEMENT AWARENESS	0	Y	03/08/1994		02006G			
02006L	ASBESTOS AWARENESS	12	Y	02/19/2014	02/19/2015	170063	170063		
020075	HAZARDOUS MATERIALS GENERAL AWARENESS	36	Y	06/21/2012	06/21/2015	020075	020075		
020077	HAZARDOUS MATERIALS DRIVERS TRAINING	36	Y	06/13/2013	06/13/2016	020077	020077		
020134	HANFORD SITE CONFINED SPACE ENTRY	0	Y	11/21/2011		020134			
020147	FALL HAZARD RECOGNITION AND PREVENTION	0	Y	02/20/1996		020140			
020150	LEAD (Pb) WORKER TRAINING (LWT)	12	Y	02/20/2014	02/20/2015	020152	020152		
020193	HEAT STRESS PREVENTION AND FIRST AID - CBT	24	Y	02/26/2013	02/26/2015	020193	020193		
020194	HEARING CONSERVATION - CBT	12	Y	02/19/2014	02/19/2015	020194	020194		
020440	FALL PROTECTION PFAS USERS	24	Y	05/30/2012	05/30/2014	020441	020441	10/01/2014	020441
031220	40-HOUR HAZARDOUS WASTE SITE WORKER	12	Y	03/12/2014	03/12/2015	032020	032020		
031420	3-DAY SUPERVISED FIELD EXPERIENCE	0	Y	01/17/1990		020202			
035100	CONTAINER WASTE MANAGEMENT INITIAL	12	Y	02/19/2014	02/19/2015	035110	035110		
044371	USERS SCAFFOLD SAFETY - CBT	0	Y	10/01/2003		044370			
044391	PORTABLE LADDER SAFETY - CBT	0	Y	07/05/2005		044391			
044400	FIRE WATCH TRAINING	36	Y	05/26/2011	05/26/2014	044400	044400	09/18/2014	044400
044480	ELECTRICAL SAFETY FOR NON-ELECTRICAL	36	Y	04/02/2014	04/02/2017	044480	044480		
044605	EQUIPMENT OPERATION NEAR POWER LINES	0	Y	06/25/2007		044605			
170055	CERTIFIED ASBESTOS WORKER	12	Y	05/06/2013	06/25/2014	170057	170057	10/09/2014	170057
170500	BASIC MEDIC FIRST AID/CPR/AED TRAINING	24	Y	03/26/2014	03/26/2016	170501	170501		
290002	S&M NCO SURVEILLANCE QUALIFICATION - CANYON	24	Y	06/26/2012	06/26/2014	290002	290002		

## Training Plan by HID

Data as of: 05/28/2014

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Name: Wise, William M

Hanford ID: 0020433

Contractor: CHPRC

Job Title: STD 4/28 - NCO - CP S&M

Course	Course Title	Recert Freq	Ren?	Date Taken	Date Needed	Crs Taken	Retrain Crs	Date Sched	Crs# Sched
290003	S&M NCO SURVEILLANCE	24	Y	06/26/2012	06/26/2014	290003	290003		
290004	S&M NCO WASTE QUAL (HANDLING, PACKAGING, AND	24	Y	03/13/2014	03/13/2016	290004	290004		
290130	TSD FACILITIES & WASTE SITE OVERVIEW -CBT	12	Y	02/20/2014	02/20/2015	290130	290130		
290147	CRITICALITY SAFETY JSO FMH - S&M/2E/W D-4	24	Y	09/24/2012	09/24/2014	290147	290147		
290200	CPS&M ORIENTATION / FEHIC - CBT	12	Y	02/19/2014	02/19/2015	290200	290200		
324033	S&M FACILITY EMERGENCY RESPONSE	12	Y	02/19/2014	02/19/2015	324033	324033		
--- CP S&M - Nuclear Chemical Operator (NCO) (5274) ---									
000001	HANFORD GENERAL EMPLOYEE TRAINING - CBT	12	Y	02/19/2014	02/19/2015	000001	000001		
000006	CHPRC - GENERAL EMPLOYEE TRAINING (CGET)	12	Y	02/19/2014	02/19/2015	000006	000006		
035100	CONTAINER WASTE MANAGEMENT INITIAL	12	Y	02/19/2014	02/19/2015	035110	035110		
290002	S&M NCO SURVEILLANCE QUALIFICATION - CANYON	24	Y	06/26/2012	06/26/2014	290002	290002		
290003	S&M NCO SURVEILLANCE	24	Y	06/26/2012	06/26/2014	290003	290003		
290004	S&M NCO WASTE QUAL (HANDLING, PACKAGING, AND	24	Y	03/13/2014	03/13/2016	290004	290004		
290200	CPS&M ORIENTATION / FEHIC - CBT	12	Y	02/19/2014	02/19/2015	290200	290200		
--- CP S&M Nuclear Chemical Operator (NCO) - Core (1735) ---									
020001	RADIOLOGICAL WORKER II INITIAL TRAINING	24	Y	12/05/2012	12/05/2014	020003	020003		
065911	CORE FUNDAMENTALS - MATHEMATICS	0	Y	01/18/1993		065911			
065912	CORE FUNDAMENTALS - CHEMISTRY	0	Y	01/25/1993		065912			
065914	CORE FUNDAMENTALS - ELECTRICAL	0	Y	01/29/1993		065914			
065915	CORE FUNDAMENTALS - INSTRUMENTATION	0	Y	02/11/1993		065915			
065917	CORE FUNDAMENTALS - MECHANICAL	0	Y	02/05/1993		065917			
080403	WORKPLACE SUBSTANCE ABUSE PROGRAM POLICY	24	Y	02/27/2013	02/27/2015	080403	080403		
600078	CHPRC VEHICLE SPOTTER AWARENESS TRAINING	0	Y	02/15/2011		600078			
--- DSA Annual Briefings (1710) ---									
290615	224-B 2012 DSA ANNUAL BRIEFING	0	Y	08/29/2012		290615			
290616	224-T 2012 DSA ANNUAL BRIEFING	0	Y	08/29/2012		290616			
290617	FFTF 2012 DSA ANNUAL BRIEFING	0	Y	08/29/2012		290617			
290618	REDOX 2012 DSA ANNUAL TRAINING	0	Y	04/30/2013		290618			
290619	U-PLANT 2012 DSA ANNUAL TRAINING	0	Y	04/30/2013		290619			
290620	B-PLANT 2012 DSA ANNUAL TRAINING	0	Y	04/30/2013		290620			
290621	PUREX 2012 DSA ANNUAL TRAINING	0	Y	04/30/2013		290621			
--- Global Harmonization Systems Trng - CBT (GHS-1) ---									
600400	CHPRC GHS HAZARD COMMUNICATION	0	Y	02/26/2013		600400	600400		
--- Gov't Vehicle Drivers Awareness & Practical (1507) ---									
145000	DRIVER AWARENESS - PRACTICAL	0	Y	07/23/2010		301846			



## Training Plan by HID

Data as of: 05/28/2014

Page 3 of 4

Name: Wise, William M

Hanford ID: 0020433

Contractor: CHPRC

Job Title: STD 4/28 - NCO - CP S&M

Course	Course Title	Recert Freq	Req?	Date Taken	Date Needed	Crs Taken	Retrain Crs	Data Sched	Crs# Sched
301845	DRIVER AWARENESS - CBT	0	Y	06/28/2010		301845			
--- OJE to operate aerial lifts. (5655) ---									
000396	ON-THE-JOB TRAINER FUNDAMENTALS	0	Y	09/27/1994		000390			
000397	ON-THE-JOB EVALUATOR FUNDAMENTALS	0	Y	06/22/1999		000397			
003909	H&R ON-THE-JOB EVALUATOR INSTRUCTION	60	Y	10/05/2012	10/05/2017	003909	003909		
043832	AERIAL LIFT SAFETY	60	Y	10/05/2012	10/05/2017	044681	0427AL		
044674	PROPANE BOTTLE CHANGE-OUT	0	Y	11/02/2012		044674			
--- OUO Information Requirements - CBT (1364) ---									
000030	OFFICIAL USE ONLY INFORMATION REQUIREMENTS -	12	Y	02/20/2014	02/20/2015	000030	000030		
--- RESP - Bottle Cart Operator (5705) ---									
020047	BOTTLE CART SUPPLIED AIR SYSTEM OPERATOR	12	Y	04/24/2014	04/24/2015	02R047	02R047		
020066	RESPIRATORY KNOWLEDGE-BASED INITIAL	12	Y	04/24/2014	04/24/2015	02R066	02R066		
--- RESP - Issuer (5707) ---									
020066	RESPIRATORY KNOWLEDGE-BASED INITIAL	12	Y	04/24/2014	04/24/2015	02R066	02R066		
020104	RESPIRATORY PROTECTION ISSUER TRAINING	12	Y	12/03/2013	12/03/2014	020104	020104	11/06/2014	020104
--- RESP - MSA Adv 200 (5690) ---									
020044	QUANTITATIVE MASK FIT	12	Y	04/24/2014	04/24/2015	020044	020044		
020066	RESPIRATORY KNOWLEDGE-BASED INITIAL	12	Y	04/24/2014	04/24/2015	02R066	02R066		
020542	MSA ADVANTAGE 200 1/2 FACE AIR PURIFYING	12	Y	04/24/2014	04/24/2015	02R542	02R542		
--- RESP - MSA MMK (5702) ---									
020044	QUANTITATIVE MASK FIT	12	Y	04/24/2014	04/24/2015	020044	020044		
020066	RESPIRATORY KNOWLEDGE-BASED INITIAL	12	Y	04/24/2014	04/24/2015	02R066	02R066		
020527	MSA ULTRA ELITE AIR PURIFYING RESPIRATOR (APR)	12	Y	04/24/2014	04/24/2015	02R527	02R527		
020532	MSA MMK PAPR FACEPIECE	12	Y	04/24/2014	04/24/2015	02R532	02R532		
--- RESP - MSA TL (5694) ---									
020044	QUANTITATIVE MASK FIT	12	Y	04/24/2014	04/24/2015	020044	020044		
020066	RESPIRATORY KNOWLEDGE-BASED INITIAL	12	Y	04/24/2014	04/24/2015	02R066	02R066		
020525	MSA TL PAPR FACEPIECE / HOOD	12	Y	04/24/2014	04/24/2015	02R525	02R525		
020527	MSA ULTRA ELITE AIR PURIFYING RESPIRATOR (APR)	12	Y	04/24/2014	04/24/2015	02R527	02R527		
--- RESP - MSA Ultra Twin/Vue (5691) ---									
020044	QUANTITATIVE MASK FIT	12	Y	04/24/2014	04/24/2015	020044	020044		
020066	RESPIRATORY KNOWLEDGE-BASED INITIAL	12	Y	04/24/2014	04/24/2015	02R066	02R066		
020533	MSA ULTRA TWIN AIR PURIFYING RESPIRATOR (APR)	12	Y	04/24/2014	04/24/2015	02R533	02R533		

## Training Plan by HID

Data as of: 05/28/2014

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Name: Wise, William M Hanford ID: 0020433 Contractor: CHPRC

Job Title: STD 4/28 - NCO - CP S&M

Course	Course Title	Recert Freq	Req?	Date Taken	Date Needed	Crs Taken	Retrain Crs	Date Sched	Crs# Sched
--- RESP - SCBA (5703) ---									
020030	SCOTT SCBA	12	Y	04/24/2014	04/24/2015	02R030	02R030		
020044	QUANTITATIVE MASK FIT	12	Y	04/24/2014	04/24/2015	020044	020044		
020066	RESPIRATORY KNOWLEDGE-BASED INITIAL	12	Y	04/24/2014	04/24/2015	02R066	02R066		
020538	SCOTT AV 3000 AIR PURIFYING RESPIRATOR (APR)	12	Y	04/24/2014	04/24/2015	02R538	02R538		
--- RESP - Scott Carri-Air (5706) ---									
020032	SCOTT SKA-PAK	12	Y	04/24/2014	04/24/2015	02R032	02R032		
020044	QUANTITATIVE MASK FIT	12	Y	04/24/2014	04/24/2015	020044	020044		
020066	RESPIRATORY KNOWLEDGE-BASED INITIAL	12	Y	04/24/2014	04/24/2015	02R066	02R066		
020538	SCOTT AV 3000 AIR PURIFYING RESPIRATOR (APR)	12	Y	04/24/2014	04/24/2015	02R538	02R538		
020601	SUPPLIED (CARRI-AIR) AIR ENTRY-EXIT SYSTEM	12	Y	04/24/2014	04/24/2015	02R601	02R601		
--- RESP - Scott SKA-PAK Plus (5704) ---									
020032	SCOTT SKA-PAK	12	Y	04/24/2014	04/24/2015	02R032	02R032		
020044	QUANTITATIVE MASK FIT	12	Y	04/24/2014	04/24/2015	020044	020044		
020066	RESPIRATORY KNOWLEDGE-BASED INITIAL	12	Y	04/24/2014	04/24/2015	02R066	02R066		
020538	SCOTT AV 3000 AIR PURIFYING RESPIRATOR (APR)	12	Y	04/24/2014	04/24/2015	02R538	02R538		
--- Respiratory Issuer QC - CPS&M (1174-5) ---									
020066	RESPIRATORY KNOWLEDGE-BASED INITIAL	12	Y	04/24/2014	04/24/2015	02R066	02R066		
020104	RESPIRATORY PROTECTION ISSUER TRAINING	12	Y	12/03/2013	12/03/2014	020104	020104	11/06/2014	020104
290210	CP S&M RESPIRATORY PROTECTION ISSUER	0	Y	03/26/2013		290210			
--- S&M FACILITY EMERGENCY RESPONSE ORGANIZATION (FERO) (4670) ---									
324033	S&M FACILITY EMERGENCY RESPONSE	12	Y	02/19/2014	02/19/2015	324033	324033		

### Medical Schedule Dates

Last Exam Date	Next Exam Date	Program	Status	Clearance Date	Expiration Date
08/27/2013	06/24/2014	RESP	CLEARED	08/27/2013	08/27/2014

### Dosimetry Schedule Dates

Exam Type and Description	Exam Date	Exam Time	Last Exam Date
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**U.S. ENVIRONMENTAL PROTECTION AGENCY**  
**INSPECTION OF 400 AREA WMU, 440-PAD, AND MASF**  
**DOCUMENTS AND INFORMATION REQUEST**  
**MAY 21, 2014**

**INSPECTION REQUEST NUMBER 4**

Copies of 2CP-SUR-F-05024 "Hanford Facility RCRA Permit 400 Area Waste Management Unit  
– Weekly Inspection Log for 400 Area Waste Management Units," dated from May 7, 2013  
through May 19, 2014.

## Hanford Facility RCRA Permit 400 Area Waste Management Unit

## Inspections

Published Date: 11/30/12

CPSM-PRO-OP-50673

Effective Date: 11/30/12

Data Sheet 1 - Weekly Inspection Log for 400 Area Waste Management Units

Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.2) Active Storage Areas: FSF (Building 403)	9-9-13	1340
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is inert gas pressure in feed line to CCP boxes (>2 inH <sub>2</sub> O <27 inH <sub>2</sub> O) at the Dewar Pad?	<input checked="" type="radio"/> Yes    No	N/A
Is concrete floor, curbing, and walls in satisfactory condition?	<input checked="" type="radio"/> Yes    No	↓
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes    No	
Are containers closed?	<input checked="" type="radio"/> Yes    No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes    No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes    No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes    No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes    No	
Additional Comments		
N/A		
DS O'Brien		DS O'Brien
Inspector / Print Name		Inspector / Signature
Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.3) Active Storage Area: ISA	9-9-13	1330
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes    No	N/A
Are containers closed?	<input checked="" type="radio"/> Yes    No	↓
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes    No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes    No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes    No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes    No	
Are modules free of moisture, including condensation?	<input checked="" type="radio"/> Yes    No	
Additional Comments		
N/A		
DS O'Brien		DS O'Brien
Inspector / Print Name		Inspector / Signature

9/13

## Hanford Facility RCRA Permit 400 Area Waste Management Unit

## Inspections

Published Date: 11/30/12

CPSM-PRO-OP-50673

Effective Date: 11/30/12

## Data Sheet 1 - Weekly Inspection Log for 400 Area Waste Management Unit

Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.2) Active Storage Areas: FSF (Building 403)	9-16-13	0907
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is inert gas pressure in feed line to CCP boxes (>2 inH <sub>2</sub> O <27 inH <sub>2</sub> O) at the Dewar Pad?	<input checked="" type="radio"/> Yes No	N/A
Is concrete floor, curbing, and walls in satisfactory condition?	<input checked="" type="radio"/> Yes No	
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes No	
Are containers closed?	<input checked="" type="radio"/> Yes No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes No	↓
Additional Comments		
N/A		
DS OLR		DS OLR
Inspector / Print Name		Inspector / Signature
Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.3) Active Storage Area: ISA	9-16-13	0923
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes No	N/A
Are containers closed?	<input checked="" type="radio"/> Yes No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes No	
Are modules free of moisture, including condensation?	<input checked="" type="radio"/> Yes No	↓
Additional Comments		
N/A		
DS OLR		DS OLR
Inspector / Print Name		Inspector / Signature



## Hanford Facility RCRA Permit 400 Area Waste Management Unit

## Inspections

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Effective Date: 11/30/12

## Data Sheet 1 - Weekly Inspection Log for 400 Area Waste Management Units

Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.2) Active Storage Areas: FSF (Building 403)	9/23/13 <sup>23</sup> 9/27/13	0955
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is inert gas pressure in feed line to CCP boxes (>2 inH <sub>2</sub> O <27 inH <sub>2</sub> O) at the Dewar Pad?	<input checked="" type="radio"/> Yes No	N/A
Is concrete floor, curbing, and walls in satisfactory condition?	<input checked="" type="radio"/> Yes No	
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes No	
Are containers closed?	<input checked="" type="radio"/> Yes No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes No	
Additional Comments		
N/A		
JOSE L. RAMOS		
Inspector / Print Name		Inspector / Signature
Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.3) Active Storage Area: ISA	9/23/13 <sup>23</sup> 9/23/13	0945
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes No	N/A
Are containers closed?	<input checked="" type="radio"/> Yes No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes No	
Are modules free of moisture, including condensation?	<input checked="" type="radio"/> Yes No	
Additional Comments		
N/A		
JOSE L. RAMOS		
Inspector / Print Name		Inspector / Signature

## Hanford Facility RCRA Permit 400 Area Waste Management Unit

## Inspections

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## Data Sheet 1 - Weekly Inspection Log for 400 Area Waste Management Unit

Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.2) Active Storage Areas: FSF (Building 403)	9-30-13	1332
Compliance and Status		Problems Noted
Is inert gas pressure in feed line to CCP boxes (>2 inH <sub>2</sub> O <27 inH <sub>2</sub> O) at the Dewar Pad?	<input checked="" type="radio"/> Yes <input type="radio"/> No	N/A
Is concrete floor, curbing, and walls in satisfactory condition?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Are containers closed?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Additional Comments		
N/A		
JOSE L RANUS		
Inspector / Print Name		Inspector / Signature
Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.3) Active Storage Area: ISA	9-30-13	1314
Compliance and Status		Problems Noted
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes <input type="radio"/> No	N/A
Are containers closed?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Are modules free of moisture, including condensation?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Additional Comments		
N/A		
JOSE L RANUS		
Inspector / Print Name		Inspector / Signature



## Hanford Facility RCRA Permit 400 Area Waste Management Unit

## Inspections

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## Data Sheet 1 - Weekly Inspection Log for 400 Area Waste Management Units

Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.2) Active Storage Areas: FSF (Building 403)	10-7/2013	0945
Compliance and Status		Problems Noted
Is inert gas pressure in feed line to CCP boxes (>2 inH <sub>2</sub> O <27 inH <sub>2</sub> O) at the Dewar Pad?	<input checked="" type="radio"/> Yes No	N/A
Is concrete floor, curbing, and walls in satisfactory condition?	<input checked="" type="radio"/> Yes No	
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes No	
Are containers closed?	<input checked="" type="radio"/> Yes No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes No	V
Additional Comments		
N/A		
Mike Reid		Mike Reid
Inspector / Print Name		Inspector / Signature
Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.3) Active Storage Area: ISA	10-7/2013	0930
Compliance and Status		Problems Noted
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes No	N/A
Are containers closed?	<input checked="" type="radio"/> Yes No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes No	
Are modules free of moisture, including condensation?	<input checked="" type="radio"/> Yes No	
Additional Comments		V
N/A		
Mike Reid		Mike Reid
Inspector / Print Name		Inspector / Signature



## Hanford Facility RCRA Permit 400 Area Waste Management Unit

## Inspections

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## Data Sheet 1 - Weekly Inspection Log for 400 Area Waste Management Unit

Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.2) Active Storage Areas: FSF (Building 403)	10-14-13	0923
Compliance and Status		Problems Noted
Is inert gas pressure in feed line to CCP boxes (>2 inH <sub>2</sub> O <27 inH <sub>2</sub> O) at the Dewar Pad?	<input checked="" type="radio"/> Yes    No	N/A
Is concrete floor, curbing, and walls in satisfactory condition?	<input checked="" type="radio"/> Yes    No	
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes    No	
Are containers closed?	<input checked="" type="radio"/> Yes    No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes    No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes    No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes    No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes    No	✓
Additional Comments		
N/A		
DS Oider		DS Oider
Inspector / Print Name		Inspector / Signature
Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.3) Active Storage Area: ISA	10-14-13	0909
Compliance and Status		Problems Noted
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes    No	N/A
Are containers closed?	<input checked="" type="radio"/> Yes    No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes    No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes    No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes    No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes    No	
Are modules free of moisture, including condensation?	<input checked="" type="radio"/> Yes    No	
Additional Comments		
N/A		
DS Oider		DS Oider
Inspector / Print Name		Inspector / Signature

## Hanford Facility RCRA Permit 400 Area Waste Management Unit

## Inspections

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## Data Sheet 1 - Weekly Inspection Log for 400 Area Waste Management Units

Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.2) Active Storage Areas: FSF (Building 403)	10-22-13	1330
Compliance and Status		Problems Noted
Is inert gas pressure in feed line to CCP boxes (>2 inH <sub>2</sub> O <27 inH <sub>2</sub> O) at the Dewar Pad?	<input checked="" type="radio"/> Yes <input type="radio"/> No	N/A
Is concrete floor, curbing, and walls in satisfactory condition?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Are containers closed?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Additional Comments		
N/A		
Inspector / Print Name		Inspector / Signature
DSO/da		DSO/da
Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.3) Active Storage Area: ISA	10-22-13	1311
Compliance and Status		Problems Noted
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes <input type="radio"/> No	N/A
Are containers closed?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Are modules free of moisture, including condensation?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Additional Comments		
N/A		
Inspector / Print Name		Inspector / Signature
DSO/da		DSO/da



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## Inspections

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## Data Sheet 1 - Weekly Inspection Log for 400 Area Waste Management Units

Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.2) Active Storage Areas: FSF (Building 403)	10/28/13	10:10
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is inert gas pressure in feed line to CCP boxes (>2 inH <sub>2</sub> O <27 inH <sub>2</sub> O) at the Dewar Pad?	(Yes) No	N/A
Is concrete floor, curbing, and walls in satisfactory condition?	(Yes) No	N/A
Is container structural integrity satisfactory?	(Yes) No	
Are containers closed?	(Yes) No	
Are containers free of significant corrosion?	(Yes) No	
No evidence of spills or leaks from containers?	(Yes) No	
No accumulated liquids present?	(Yes) No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	(Yes) No	N/A
Additional Comments		
N/A		
JOSE L. RAMES		
Inspector / Print Name		Inspector / Signature
Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.3) Active Storage Area: ISA	10/28/13	10:25
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is container structural integrity satisfactory?	(Yes) No	N/A
Are containers closed?	(Yes) No	
Are containers free of significant corrosion?	(Yes) No	
No evidence of spills or leaks from containers?	(Yes) No	
No accumulated liquids present?	(Yes) No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	(Yes) No	
Are modules free of moisture, including condensation?	(Yes) No	N/A
Additional Comments		
N/A		
JOSE L. RAMES		
Inspector / Print Name		Inspector / Signature

## Hanford Facility RCRA Permit 400 Area Waste Management Unit

## Inspections

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Data Sheet 1 - Worksheet: Inspection Log for 400 Area Waste Management Units

Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.2) Active Storage Areas: FSF (Building 403)	11-7-13	1001
Compliance and Status		Problems Noted
Is inert gas pressure in feed line to CCP boxes (>2 inH <sub>2</sub> O <27 inH <sub>2</sub> O) at the Dewar Pad?	<input checked="" type="radio"/> Yes No	N/A
Is concrete floor, curbing, and walls in satisfactory condition?	<input checked="" type="radio"/> Yes No	
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes No	
Are containers closed?	<input checked="" type="radio"/> Yes No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes No	
Additional Comments		
N/A		
Inspector / Print Name		Inspector / Signature
DS/D		DS/D
Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.3) Active Storage Area: ISA	11-7-13	0949
Compliance and Status		Problems Noted
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes No	N/A
Are containers closed?	<input checked="" type="radio"/> Yes No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes No	
Are modules free of moisture, including condensation?	<input checked="" type="radio"/> Yes No	
Additional Comments		
N/A		
Inspector / Print Name		Inspector / Signature
DS/D		DS/D



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## Inspections

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Data Sheet 1 - Weekly Inspection Log for 400 Area Waste Management Unit

Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.2) Active Storage Areas: FSF (Building 403)	11/12/13	0940
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is inert gas pressure in feed line to CCP boxes (>2 inH <sub>2</sub> O <27 inH <sub>2</sub> O) at the Dewar Pad?	<input checked="" type="radio"/> Yes No	N/A
Is concrete floor, curbing, and walls in satisfactory condition?	<input checked="" type="radio"/> Yes No	
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes No	
Are containers closed?	<input checked="" type="radio"/> Yes No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes No	
Additional Comments		
N/A		
JOSE L. RAINES		
Inspector / Print Name		Inspector / Signature
Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.3) Active Storage Area: ISA	11/12/13	0913
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes No	N/A
Are containers closed?	<input checked="" type="radio"/> Yes No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes No	
Are modules free of moisture, including condensation?	<input checked="" type="radio"/> Yes No	
Additional Comments		
N/A		
JOSE L. RAINES		
Inspector / Print Name		Inspector / Signature

## Hanford Facility RCRA Permit 400 Area Waste Management Unit

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## Data Sheet - Weekly Inspection Log for 400 Area Waste Management Unit

Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.2) Active Storage Areas: FSF (Building 403)	11/18/13	0945
Compliance and Status		Problems Noted
Is inert gas pressure in feed line to CCP boxes (>2 inH <sub>2</sub> O <27 inH <sub>2</sub> O) at the Dewar Pad?	<input checked="" type="radio"/> Yes No	N/A
Is concrete floor, curbing, and walls in satisfactory condition?	<input checked="" type="radio"/> Yes No	
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes No	
Are containers closed?	<input checked="" type="radio"/> Yes No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes No	
Is the major risk mark "Dangerous When Wet" in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes No	
Additional Comments		
N/A		
Jack Ham		Jack Ham
Inspector / Print Name		Inspector / Signature
Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.3) Active Storage Area: ISA	11/18/13	0935
Compliance and Status		Problems Noted
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes No	N/A
Are containers closed?	<input checked="" type="radio"/> Yes No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes No	
Is the major risk mark "Dangerous When Wet" in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes No	
Are modules free of moisture, including condensation?	<input checked="" type="radio"/> Yes No	
Additional Comments		
N/A		
Jack Ham		Jack Ham
Inspector / Print Name		Inspector / Signature



## Hanford Facility RCRA Permit 400 Area Waste Management Unit

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## Data Sheet 1 - Weekly Inspection Log for 400 Area Waste Management Units

Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.2) Active Storage Areas: FSF (Building 403)	11-25-13	0929
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is inert gas pressure in feed line to CCP boxes (>2 inH <sub>2</sub> O <27 inH <sub>2</sub> O) at the Dewar Pad?	<input checked="" type="radio"/> Yes No	N/A
Is concrete floor, curbing, and walls in satisfactory condition?	<input checked="" type="radio"/> Yes No	
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes No	
Are containers closed?	<input checked="" type="radio"/> Yes No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes No	
Additional Comments		
N/A		
DS O/De		DSAD
Inspector / Print Name		Inspector / Signature
Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.3) Active Storage Area: ISA	11-25-13	0918
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes No	N/A
Are containers closed?	<input checked="" type="radio"/> Yes No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes No	
Are modules free of moisture, including condensation?	<input checked="" type="radio"/> Yes No	
Additional Comments		
N/A		
DS O/De		DSAD
Inspector / Print Name		Inspector / Signature

## Hanford Facility RCRA Permit 400 Area Waste Management Unit

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## Data Sheet 1 - Weekly Inspection Log for 400 Area Waste Management Units

Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.2) Active Storage Areas: FSF (Building 403)	12/2/13	0748
Compliance and Status		Problems Noted
Is inert gas pressure in feed line to CCP boxes (>2 inH <sub>2</sub> O <27 inH <sub>2</sub> O) at the Dewar Pad?	Yes <input checked="" type="radio"/> No <input type="radio"/>	
Is concrete floor, curbing, and walls in satisfactory condition?	Yes <input checked="" type="radio"/> No <input type="radio"/>	
Is container structural integrity satisfactory?	Yes <input checked="" type="radio"/> No <input type="radio"/>	
Are containers closed?	Yes <input checked="" type="radio"/> No <input type="radio"/>	
Are containers free of significant corrosion?	Yes <input checked="" type="radio"/> No <input type="radio"/>	
No evidence of spills or leaks from containers?	Yes <input checked="" type="radio"/> No <input type="radio"/>	
No accumulated liquids present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	Yes <input checked="" type="radio"/> No <input type="radio"/>	
Additional Comments		
N/A		
Inspector / Print Name		Inspector / Signature
Jose L. Ramos		
Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.3) Active Storage Area: ISA	12/2/13	0924
Compliance and Status		Problems Noted
Is container structural integrity satisfactory?	Yes <input checked="" type="radio"/> No <input type="radio"/>	
Are containers closed?	Yes <input checked="" type="radio"/> No <input type="radio"/>	
Are containers free of significant corrosion?	Yes <input checked="" type="radio"/> No <input type="radio"/>	
No evidence of spills or leaks from containers?	Yes <input checked="" type="radio"/> No <input type="radio"/>	
No accumulated liquids present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	Yes <input checked="" type="radio"/> No <input type="radio"/>	
Are modules free of moisture, including condensation?	Yes <input checked="" type="radio"/> No <input type="radio"/>	
Additional Comments		
N/A		
Inspector / Print Name		Inspector / Signature
Jose L. Ramos		



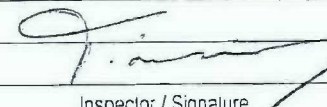
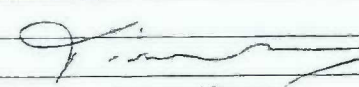
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Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.2) Active Storage Areas: FSF (Building 403)	12-9-13	1330
Compliance and Status		Problems Noted
Is inert gas pressure in feed line to CCP boxes (>2 inH <sub>2</sub> O <27 inH <sub>2</sub> O) at the Dewar Pad?	<input checked="" type="radio"/> Yes	No
Is concrete floor, curbing, and walls in satisfactory condition?	<input checked="" type="radio"/> Yes	No
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes	No
Are containers closed?	<input checked="" type="radio"/> Yes	No
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes	No
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes	No
No accumulated liquids present?	<input checked="" type="radio"/> Yes	No
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes	No
Additional Comments		
N/A		
TIM MAHEY		
Inspector / Print Name		Inspector / Signature
Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.3) Active Storage Area: ISN	12-9-13	1350
Compliance and Status		Problems Noted
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes	No
Are containers closed?	<input checked="" type="radio"/> Yes	No
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes	No
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes	No
No accumulated liquids present?	<input checked="" type="radio"/> Yes	No
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes	No
Are modules free of moisture, including condensation?	<input checked="" type="radio"/> Yes	No
Additional Comments		
N/A		
TIM MAHEY		
Inspector / Print Name		Inspector / Signature

## Hanford Facility RCRA Permit 400 Area Waste Management Unit

## Inspections

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## Data Sheet 1 - Weekly Inspection Log for 400 Area Waste Management Units

Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.2) Active Storage Areas: FSF (Building 403)	12-18-13	0935
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is inert gas pressure in feed line to CCP boxes (>2 inH <sub>2</sub> O <27 inH <sub>2</sub> O) at the Dewar Pad?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Is concrete floor, curbing, and walls in satisfactory condition?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Are containers closed?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Additional Comments		
N/A		
DS Alder		DSR
Inspector / Print Name		Inspector / Signature
Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.3) Active Storage Area: ISA	12-18-13	0921
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Are containers closed?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Are modules free of moisture, including condensation?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Additional Comments		
N/A		
DS Alder		DSR
Inspector / Print Name		Inspector / Signature

## Hanford Facility RCRA Permit 400 Area Waste Management Unit


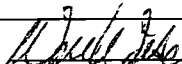

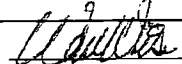
## Inspections

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## Data Sheet 1 - Weekly Inspection Log for 400 Area Waste Management Units

Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.2) Active Storage Areas: FSF (Building 403)	12-23-13	0937
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is inert gas pressure in feed line to CCP boxes (>2 inH <sub>2</sub> O <27 inH <sub>2</sub> O) at the Dewar Pad?	<input checked="" type="radio"/> Yes No	
Is concrete floor, curbing, and walls in satisfactory condition?	<input checked="" type="radio"/> Yes No	
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes No	
Are containers closed?	<input checked="" type="radio"/> Yes No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes No	
Additional Comments		
N/A		
 Inspector / Print Name		 Inspector / Signature
Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.3) Active Storage Area: ISA	12-23-13	0910
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes No	
Are containers closed?	<input checked="" type="radio"/> Yes No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes No	
Are modules free of moisture, including condensation?	<input checked="" type="radio"/> Yes No	
Additional Comments		
N/A		
 Inspector / Print Name		 Inspector / Signature

## Hanford Facility RCRA Permit 400 Area Waste Management Unit

## Inspections

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Data Sheet 1 - Weekly Inspection Log for 400 Area Waste Management Units

Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.2) Active Storage Areas: FSF (Building 403)	12/30/13	0945
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is inert gas pressure in feed line to CCP boxes (>2 inH <sub>2</sub> O <27 inH <sub>2</sub> O) at the Dewar Pad?	<input checked="" type="radio"/> Yes No	
Is concrete floor, curbing, and walls in satisfactory condition?	<input checked="" type="radio"/> Yes No	
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes No	
Are containers closed?	<input checked="" type="radio"/> Yes No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes No	
Additional Comments		
N/A		
Mike Reid Inspector / Print Name		Mike Reid Inspector / Signature
Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.3) Active Storage Area: ISA	12-30/13	0930
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes No	
Are containers closed?	<input checked="" type="radio"/> Yes No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes No	
Are modules free of moisture, including condensation?	<input checked="" type="radio"/> Yes No	
Additional Comments		
N/A		
Mike Reid Inspector / Print Name		Mike Reid Inspector / Signature

## Hanford Facility RCRA Permit 400 Area Waste Management Unit

## Inspections

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## Data Sheet 1 - Weekly Inspection Log for 400 Area Waste Management Units

Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.2) Active Storage Areas: FSF (Building 403)	1-1-14	0922
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is inert gas pressure in feed line to CCP boxes (>2 inH <sub>2</sub> O <27 inH <sub>2</sub> O) at the Dewar Pad?	Yes No	N/A
Is concrete floor, curbing, and walls in satisfactory condition?	Yes No	
Is container structural integrity satisfactory?	Yes No	
Are containers closed?	Yes No	
Are containers free of significant corrosion?	Yes No	
No evidence of spills or leaks from containers?	Yes No	
No accumulated liquids present?	Yes No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	Yes No	
Additional Comments		
N/A		
Inspector / Print Name		Inspector / Signature
OS [Signature]		OS [Signature]
Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.3) Active Storage Area: ISA	1-6-14	0926
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is container structural integrity satisfactory?	Yes No	N/A
Are containers closed?	Yes No	
Are containers free of significant corrosion?	Yes No	
No evidence of spills or leaks from containers?	Yes No	
No accumulated liquids present?	Yes No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	Yes No	
Are modules free of moisture, including condensation?	Yes No	
Additional Comments		
N/A		
Inspector / Print Name		Inspector / Signature
OS [Signature]		OS [Signature]

## Hanford Facility RCRA Permit 400 Area Waste Management Unit

## Inspections

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## Data Sheet 1 - Weekly Inspection Log for 400 Area Waste Management Units

Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.2) Active Storage Areas: FSF (Building 403)	1-13-14	0945
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is inert gas pressure in feed line to CCP boxes (>2 inH <sub>2</sub> O <27 inH <sub>2</sub> O) at the Dewar Pad?	<input checked="" type="radio"/> Yes No	N/A
Is concrete floor, curbing, and walls in satisfactory condition?	<input checked="" type="radio"/> Yes No	↓
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes No	
Are containers closed?	<input checked="" type="radio"/> Yes No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes No	
Additional Comments		
N/A		
DS Older		DSN
Inspector / Print Name		Inspector / Signature
Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.3) Active Storage Area: ISA	1-13-14	0917
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes No	N/A
Are containers closed?	<input checked="" type="radio"/> Yes No	↓
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes No	
Are modules free of moisture, including condensation?	<input checked="" type="radio"/> Yes No	
Additional Comments		
N/A		
DS Older		DSN
Inspector / Print Name		Inspector / Signature

## Hanford Facility RCRA Permit 400 Area Waste Management Unit

## Inspections

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## Date Sheet 1 - Weekly Inspection Log for 400 Area Waste Management Unit

Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.2) Active Storage Areas: FSF (Building 403)	1-20-14	0949
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is inert gas pressure in feed line to CCP boxes (>2 inH <sub>2</sub> O <27 inH <sub>2</sub> O) at the Dewar Pad?	<input checked="" type="radio"/> Yes No	N/A
Is concrete floor, curbing, and walls in satisfactory condition?	<input checked="" type="radio"/> Yes No	↓
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes No	
Are containers closed?	<input checked="" type="radio"/> Yes No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes No	
Additional Comments		
N/A		
DS O/D		DS O/D
Inspector / Print Name		Inspector / Signature
Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.3) Active Storage Area: ISA	1-20-14	0934
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes No	N/A
Are containers closed?	<input checked="" type="radio"/> Yes No	↓
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes No	
Are modules free of moisture, including condensation?	<input checked="" type="radio"/> Yes No	
Additional Comments		
N/A		
DS O/D		DS O/D
Inspector / Print Name		Inspector / Signature

**Hanford Facility RCRA Permit 400 Area Waste Management Unit**

**Published Date: 11/30/12** **Inspections**  
**CPSM-PRO-OP-50673**

**Effective Date: 11/30/12**

Data Sheet 1 – Weekly Inspection Log for 400 Area Waste Management Units

Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.2) Active Storage Areas: FSF (Building 403)	1/27/14	10:08
Compliance and Status		Problems Noted
Is inert gas pressure in feed line to CCP boxes (>2 inH <sub>2</sub> O <27 inH <sub>2</sub> O) at the Dewar Pad?	<input checked="" type="radio"/> Yes No	N/A
Is concrete floor, curbing, and walls in satisfactory condition?	<input checked="" type="radio"/> Yes No	
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes No	
Are containers closed?	<input checked="" type="radio"/> Yes No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes No	
Additional Comments		
N/A		
JOSE L. RABILES		2/12
Inspector / Print Name		Inspector / Signature
Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.3) Active Storage Area: ISA	1/27/14	0945
Compliance and Status		Problems Noted
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes No	N/A
Are containers closed?	<input checked="" type="radio"/> Yes No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes No	
Are modules free of moisture, including condensation?	<input checked="" type="radio"/> Yes No	
Additional Comments		
WP put LPE mat down on the pads VERY ICE		
JOSE L. RABILES		2/12
Inspector / Print Name		Inspector / Signature



## Hanford Facility RCRA Permit 400 Area Waste Management Unit

## Inspections

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## Data Sheet 1 - Weekly Inspection Log for 400 Area Waste Management Unit

Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.2) Active Storage Areas: FSF (Building 403)	2-7-2014 2-7-2014	0815
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is inert gas pressure in feed line to CCP boxes (>2 inH <sub>2</sub> O <27 inH <sub>2</sub> O) at the Dewar Pad?	<input checked="" type="radio"/> Yes No	
Is concrete floor, curbing, and walls in satisfactory condition?	<input checked="" type="radio"/> Yes No	
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes No	
Are containers closed?	<input checked="" type="radio"/> Yes No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes No	
Additional Comments		
Batteries down on lights		
Need lights for LK 2		
Mike Reid		Mike Reid
Inspector / Print Name		Inspector / Signature
Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.3) Active Storage Area: ISA	2-3-2014	0845
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes No	
Are containers closed?	<input checked="" type="radio"/> Yes No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes No	
Are modules free of moisture, including condensation?	<input checked="" type="radio"/> Yes No	
Additional Comments		
N/A		
Mike Reid		Mike Reid
Inspector / Print Name		Inspector / Signature

## Hanford Facility RCRA Permit 400 Area Waste Management Unit

## Inspections

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Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.2) Active Storage Areas: FSF (Building 403)	2-10-14	0901
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is inert gas pressure in feed line to CCP boxes (>2 inH <sub>2</sub> O <27 inH <sub>2</sub> O) at the Dewar Pad?	<input checked="" type="radio"/> Yes    No	
Is concrete floor, curbing, and walls in satisfactory condition?	<input checked="" type="radio"/> Yes    No	
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes    No	
Are containers closed?	<input checked="" type="radio"/> Yes    No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes    No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes    No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes    No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes    No	
Additional Comments		
N/A		
DS 016		DS 70
Inspector / Print Name		Inspector / Signature
Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.3) Active Storage Area: ISA	2-10-14	0850
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes    No	
Are containers closed?	<input checked="" type="radio"/> Yes    No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes    No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes    No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes    No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes    No	
Are modules free of moisture, including condensation?	<input checked="" type="radio"/> Yes    No	
Additional Comments		
N/A		
DS 016		DS 70
Inspector / Print Name		Inspector / Signature

## Hanford Facility RCRA Permit 400 Area Waste Management Unit

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## Data Sheet 1 - Weekly Inspection Log for 400 Area Waste Management Unit

Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.2) Active Storage Areas: FSF (Building 403)	2/18/14	0929
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is inert gas pressure in feed line to CCP boxes (>2 inH <sub>2</sub> O <27 inH <sub>2</sub> O) at the Dewar Pad?	<input checked="" type="radio"/> Yes No	
Is concrete floor, curbing, and walls in satisfactory condition?	<input checked="" type="radio"/> Yes No	
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes No	
Are containers closed?	<input checked="" type="radio"/> Yes No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes No	
Additional Comments		
N/A		
JOSE L RAMOS		
Inspector / Print Name		Inspector / Signature
Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.3) Active Storage Area: ISA	2/18/14	0955
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes No	
Are containers closed?	<input checked="" type="radio"/> Yes No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes No	
Are modules free of moisture, including condensation?	<input checked="" type="radio"/> Yes No	
Additional Comments		
N/A		
JOSE L. RAMOS		
Inspector / Print Name		Inspector / Signature

## Hanford Facility RCRA Permit 400 Area Waste Management Unit

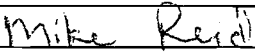
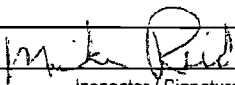
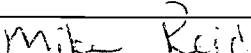
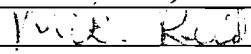
## Inspections

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## Data Sheet 1 - Weekly Inspection Log for 400 Area Waste Management Units

Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.2) Active Storage Areas: FSF (Building 403)	2-24 / 2014	C 924
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is inert gas pressure in feed line to CCP boxes (>2 inH <sub>2</sub> O <27 inH <sub>2</sub> O) at the Dewar Pad?	<input checked="" type="radio"/> Yes No	
Is concrete floor, curbing, and walls in satisfactory condition?	<input checked="" type="radio"/> Yes No	
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes No	
Are containers closed?	<input checked="" type="radio"/> Yes No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes No	
Additional Comments		
 Inspector / Print Name		 Inspector / Signature
Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.3) Active Storage Area: ISA	2-24 / 2014	C 855
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is container structural integrity satisfactory?	Yes No	
Are containers closed?	Yes No	
Are containers free of significant corrosion?	Yes No	
No evidence of spills or leaks from containers?	Yes No	
No accumulated liquids present?	Yes No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	Yes No	
Are modules free of moisture, including condensation?	Yes No	
Additional Comments		
 Inspector / Print Name		 Inspector / Signature

## Hanford Facility RCRA Permit 400 Area Waste Management Unit

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Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.2) Active Storage Areas: FSF (Building 403)	3-3-14	0846
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is inert gas pressure in feed line to CCP boxes (>2 inH <sub>2</sub> O <27 inH <sub>2</sub> O) at the Dewar Pad?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Is concrete floor, curbing, and walls in satisfactory condition?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Are containers closed?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Additional Comments		
DS [Signature]		DS [Signature]
Inspector / Print Name		Inspector / Signature
Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.3) Active Storage Area: ISA	3-3-14	0830
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Are containers closed?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Are modules free of moisture, including condensation?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Additional Comments		
DS [Signature]		DS [Signature]
Inspector / Print Name		Inspector / Signature

## Hanford Facility RCRA Permit 400 Area Waste Management Unit

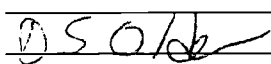
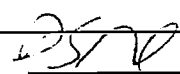
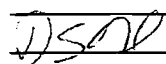
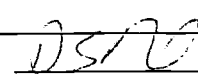
## Inspections

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Data Sheet 1 - Weekly Inspection Log for 400 Area Waste Management Units

Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.2) Active Storage Areas: FSF (Building 403)	3-10-14	1113
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is inert gas pressure in feed line to CCP boxes (>2 inH <sub>2</sub> O <27 inH <sub>2</sub> O) at the Dewar Pad?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Is concrete floor, curbing, and walls in satisfactory condition?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Are containers closed?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Additional Comments		
 Inspector / Print Name		 Inspector / Signature
Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.3) Active Storage Area: ISA	3-10-14	1131
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Are containers closed?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Are modules free of moisture, including condensation?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Additional Comments		
 Inspector / Print Name		 Inspector / Signature

## Hanford Facility RCRA Permit 400 Area Waste Management Unit

## Inspections

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## Data Sheet 4 - Weekly Inspection Log for 400 Area Waste Management Units

Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.2) Active Storage Areas: FSF (Building 403)	3-17-14	0857
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is inert gas pressure in feed line to CCP boxes (>2 inH <sub>2</sub> O <27 inH <sub>2</sub> O) at the Dewar Pad?	<input checked="" type="radio"/> Yes No	
Is concrete floor, curbing, and walls in satisfactory condition?	<input checked="" type="radio"/> Yes No	
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes No	
Are containers closed?	<input checked="" type="radio"/> Yes No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes No	
Additional Comments		
DS Old		DS RV
Inspector / Print Name		Inspector / Signature
Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.3) Active Storage Area: ISA	3-17-14	0833
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes No	
Are containers closed?	<input checked="" type="radio"/> Yes No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes No	
Are modules free of moisture, including condensation?	<input checked="" type="radio"/> Yes No	
Additional Comments		
DS Old		DS RV
Inspector / Print Name		Inspector / Signature

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## Data Sheet 1 - Weekly Inspection Log for 400 Area Waste Management Units

Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.2) Active Storage Areas: FSF (Building 403)	3/24/14	0924
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is inert gas pressure in feed line to CCP boxes (>2 inH <sub>2</sub> O <27 inH <sub>2</sub> O) at the Dewar Pad?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Is concrete floor, curbing, and walls in satisfactory condition?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Are containers closed?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Additional Comments		
JOSE L RAMOS		
Inspector / Print Name		Inspector / Signature
Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.3) Active Storage Area: ISA	3/24/14	0900
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Are containers closed?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Are modules free of moisture, including condensation?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Additional Comments		
JOSE L RAMOS		
Inspector / Print Name		Inspector / Signature



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## Data Sheet 1 - Weekly Inspection Log for 400 Area Waste Management Units

Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.2) Active Storage Areas: FSF (Building 403)	3-31-14	0855
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is inert gas pressure in feed line to CCP boxes (>2 inH <sub>2</sub> O <27 inH <sub>2</sub> O) at the Dewar Pad?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Is concrete floor, curbing, and walls in satisfactory condition?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Are containers closed?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Additional Comments		
DS Old		DS Old
Inspector / Print Name		Inspector / Signature
Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.3) Active Storage Area: ISA	3-31-14	0840
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Are containers closed?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Are modules free of moisture, including condensation?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Additional Comments		
DS Old		DS Old
Inspector / Print Name		Inspector / Signature

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Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.2) Active Storage Areas: FSF (Building 403)	4-7-2014	0918
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is inert gas pressure in feed line to CCP boxes (>2 inH <sub>2</sub> O <27 inH <sub>2</sub> O) at the Dewar Pad?	<input checked="" type="radio"/> Yes No	
Is concrete floor, curbing, and walls in satisfactory condition?	<input checked="" type="radio"/> Yes No	
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes No	
Are containers closed?	<input checked="" type="radio"/> Yes No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes No	
Additional Comments		
DS Old		DSN
Inspector / Print Name		Inspector / Signature
Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.3) Active Storage Area: ISA	4-7-2014	0900
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes No	
Are containers closed?	<input checked="" type="radio"/> Yes No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes No	
Are modules free of moisture, including condensation?	<input checked="" type="radio"/> Yes No	
Additional Comments		
DS Old		DSN
Inspector / Print Name		Inspector / Signature

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Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.2) Active Storage Areas: FSF (Building 403)	7/14/14	12:12
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is inert gas pressure in feed line to CCP boxes (>2 inH <sub>2</sub> O <27 inH <sub>2</sub> O) at the Dewar Pad?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Is concrete floor, curbing, and walls in satisfactory condition?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Are containers closed?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Additional Comments		
JOSE L. RAMOS		
Inspector / Print Name		Inspector / Signature
Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.3) Active Storage Area: ISA	7/14/14	0942
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Are containers closed?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Are modules free of moisture, including condensation?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Additional Comments		
JOSE L. RAMOS		
Inspector / Print Name		Inspector / Signature

## Hanford Facility RCRA Permit 400 Area Waste Management Unit

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Data Sheet 1 - Weekly Inspection Log for 400 Area Waste Management Units

Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.2) Active Storage Areas: FSF (Building 403)	4/21/2014	0845
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is inert gas pressure in feed line to CCP boxes (>2 inH <sub>2</sub> O <27 inH <sub>2</sub> O) at the Dewar Pad?	<input checked="" type="radio"/> Yes No	
Is concrete floor, curbing, and walls in satisfactory condition?	<input checked="" type="radio"/> Yes No	
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes No	
Are containers closed?	<input checked="" type="radio"/> Yes No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes No	
Additional Comments		
Pelican lights need replaced with charged ones (red light on both)		
Mike Reid		Mike Reid
Inspector / Print Name		Inspector / Signature
Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.3) Active Storage Area: ISA	4/21/2014	0815
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes No	
Are containers closed?	<input checked="" type="radio"/> Yes No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes No	
Are modules free of moisture, including condensation?	<input checked="" type="radio"/> Yes No	
Additional Comments		
Mike Reid		Mike Reid
Inspector / Print Name		Inspector / Signature

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## Data Sheet 1 - Weekly Inspection Log for 400 Area Waste Management Unit

Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.2) Active Storage Areas: FSF (Building 403)	4-28-14	0920
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is inert gas pressure in feed line to CCP boxes (>2 inH <sub>2</sub> O <27 inH <sub>2</sub> O) at the Dewar Pad?	<input checked="" type="radio"/> Yes No	
Is concrete floor, curbing, and walls in satisfactory condition?	<input checked="" type="radio"/> Yes No	
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes No	
Are containers closed?	<input checked="" type="radio"/> Yes No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes No	
Additional Comments		
changed out Pelican Lights with charged ones		
DS/DL		DS/V
Inspector / Print Name		Inspector / Signature
Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.3) Active Storage Area: ISA	4-28-14	0905
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes No	
Are containers closed?	<input checked="" type="radio"/> Yes No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes No	
Are modules free of moisture, including condensation?	<input checked="" type="radio"/> Yes No	
Additional Comments		
DS/DL		DS/V
Inspector / Print Name		Inspector / Signature

## Hanford Facility RCRA Permit 400 Area Waste Management Unit

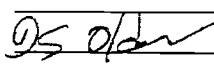
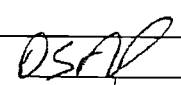
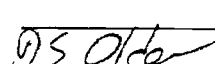
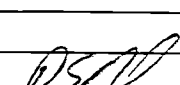
## Inspections

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Data Sheet 1 – Weekly Inspection Log for 400 Area Waste Management Units

Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.2) Active Storage Areas: FSF (Building 403)	5-5-14	0917
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is inert gas pressure in feed line to CCP boxes (>2 inH <sub>2</sub> O <27 inH <sub>2</sub> O) at the Dewar Pad?	<input checked="" type="radio"/> Yes No	
Is concrete floor, curbing, and walls in satisfactory condition?	<input checked="" type="radio"/> Yes No	
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes No	
Are containers closed?	<input checked="" type="radio"/> Yes No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes No	
Additional Comments		
 Inspector / Print Name		 Inspector / Signature
Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.3) Active Storage Area: ISA	5-5-14	0859
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes No	
Are containers closed?	<input checked="" type="radio"/> Yes No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes No	
Are modules free of moisture, including condensation?	<input checked="" type="radio"/> Yes No	
Additional Comments		
 Inspector / Print Name		 Inspector / Signature

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Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.2) Active Storage Areas: FSF (Building 403)	5-12-14	1025
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is inert gas pressure in feed line to CCP boxes (>2 inH <sub>2</sub> O <27 inH <sub>2</sub> O) at the Dewar Pad?	<input checked="" type="radio"/> Yes	No
Is concrete floor, curbing, and walls in satisfactory condition?	<input checked="" type="radio"/> Yes	No
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes	No
Are containers closed?	<input checked="" type="radio"/> Yes	No
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes	No
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes	No
No accumulated liquids present?	<input checked="" type="radio"/> Yes	No
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes	No
Additional Comments		
Deborah S. Olden		DEB S O
Inspector / Print Name		Inspector / Signature
Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.3) Active Storage Area: ISA	5-12-14	0904
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes	No
Are containers closed?	<input checked="" type="radio"/> Yes	No
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes	No
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes	No
No accumulated liquids present?	<input checked="" type="radio"/> Yes	No
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes	No
Are modules free of moisture, including condensation?	<input checked="" type="radio"/> Yes	No
Additional Comments		
DEB S O		Deborah S Olden
Inspector / Print Name		Inspector / Signature

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## Data Sheet 1 – Weekly Inspection Log for 400 Area Waste Management Units

Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.2) Active Storage Areas: FSF (Building 403)	5-19-14	0905
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is inert gas pressure in feed line to CCP boxes (>2 inH <sub>2</sub> O <27 inH <sub>2</sub> O) at the Dewar Pad?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Is concrete floor, curbing, and walls in satisfactory condition?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Are containers closed?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Additional Comments		
DS O/de		OS M
Inspector / Print Name		Inspector / Signature
Locations Inspected	Date of Inspection	Time of Inspection
(Sub-section 4.3) Active Storage Area: ISA	5-19-14	0851
<u>Compliance and Status</u>		<u>Problems Noted</u>
Is container structural integrity satisfactory?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Are containers closed?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Are containers free of significant corrosion?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
No evidence of spills or leaks from containers?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
No accumulated liquids present?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Is the major risk mark "Dangerous When Wet," in place on each container, legible, and unobscured?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Are modules free of moisture, including condensation?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Additional Comments		
DS O/de		OS M
Inspector / Print Name		Inspector / Signature



**U.S. ENVIRONMENTAL PROTECTION AGENCY**  
**INSPECTION OF 400 AREA WMU, 440-PAD, AND MASF**  
**DOCUMENTS AND INFORMATION REQUEST**  
**MAY 21, 2014**

**INSPECTION REQUEST NUMBER 5**

Copy of HNF-IP-0263-FFTF "Building Emergency Plan for Fast Flux Test Facility Property Protection Area," Revision 23, dated October 20, 2013.

# **Building Emergency Plan for Fast Flux Test Facility Property Protection Area**

**Prepared for the U.S. Department of Energy  
Assistant Secretary for Environmental Management**

**Contractor for the U.S. Department of Energy  
under Contract DE-AC06-08RL14788**

 **CH2MHILL**  
Plateau Remediation Company  
**P.O. Box 1600  
Richland, Washington 99352**

## Building Emergency Plan for Fast Flux Test Facility Property Protection Area

A. J. Olsen  
CH2M HILL Plateau Remediation Company

Date Published  
October 2013

Prepared for the U.S. Department of Energy  
Assistant Secretary for Environmental Management

Contractor for the U.S. Department of Energy  
under Contract DE-AC06-08RL14788

 **CH2MHILL**  
Plateau Remediation Company  
P.O. Box 1600  
Richland, Washington 99352

**APPROVED**

*By Janis D. Aardal at 7:25 am, Oct 17, 2013*

Release Approval

Date

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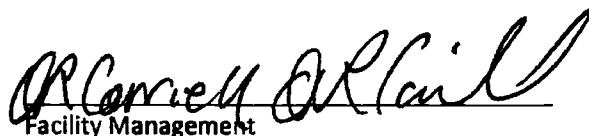
Effective Date:

October 20, 2013

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This plan covers the following buildings and structures: All buildings and storage areas within the Fast Flux Test Facility Property Protection Area, with the following exceptions: Building 437 (MASF), 481, and 4713C.

Approved:

  
Facility Management

10/10/2013  
Date

  
Environmental Compliance Officer

10/9/13  
Date

  
CH2M HILL Plateau Remediation Company  
Emergency Preparedness

10/9/13  
Date

This document will be reviewed at least annually and updated if necessary by Facility Management unless Hanford Facility RCRA Permit coordination requirements provide otherwise. The Building Emergency Director has the authority to carry out the provisions of this plan.

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## **1.0 GENERAL INFORMATION**

The Fast Flux Test Facility (FFTF) is located on the Hanford Site, a 560-square-mile (1,450-square kilometer) U.S. Department of Energy (DOE/RL) site in southeastern Washington State. The FFTF is located in the center portion of the 400 Area near the South end of the Hanford Site. The Hanford Site Emergency Preparedness Program is based on the incident command system that allows a graded approach for response to emergency events. This plan contains a description of facility specific emergency planning and response and is used in conjunction with Hanford Facility RCRA Permit (Permit Attachment 4, *Hanford Emergency Management Plan* (DOE/RL-94-02). Response to events is performed using facility specific and/or Hanford Site level emergency procedures.

### **1.1 FACILITY NAME:**

U.S. Department of Energy  
Hanford Site  
Fast Flux Test Facility

### **1.2 FACILITY LOCATION:**

Benton County, Washington within the 400 Area.

Buildings/facilities covered by this plan are: All buildings, structures, and storage locations within the FFTF Property Protection Area (PPA), with the following exceptions: Building 437 (MASF), 481, and 4713C.

### **1.3 OWNER:**

U.S. Department of Energy  
Richland Operations Office  
825 Jadwin Avenue  
Richland, Washington 99352

#### **FACILITY MANAGER:**

CH2M Hill Plateau Remediation Company  
P.O. Box 1600  
Richland, Washington 99352-1600

#### **1.4 DESCRIPTION OF THE FACILITY AND OPERATIONS**

Unless otherwise implied, the term "FFTF", as used in this document, is generally intended to signify all areas covered by the Building Emergency Plan as delineated in Section 1.2.

##### **FFTF Plant**

The FFTF Plant was a sodium-cooled reactor complex with three primary and secondary loops utilizing 12 sodium-to-air Dump Heat Exchangers (DHX) that transferred heat from the secondary loops to the ambient air.

Originally constructed to support the U.S. Liquid Metal Fast Breeder Reactor Program, the FFTF has performed nuclear fuel and materials tests in support of both national and international fast breeder reactor programs, produced medical and industrial isotopes, performed materials tests for fusion and space programs, conducted passive safety tests, and provided customized neutron environments to meet varying needs. Due to lack of a long-term mission the reactor was shut down in March 1992. All fuel has been removed from the facility. The bulk liquid metal inventory has been drained to the Sodium Storage Facility (Building 402).

##### **Building 403 - Fuel Storage Facility (FSF)**

The Fuel Storage Facility (FSF) was designed to provide long term storage for irradiated fueled assemblies and core components that were not intended to be returned to the core. The FSF is located adjacent to the Reactor Service Building and the FSF vessel is located below grade in a cell. All fuel assemblies have been removed from the FSF vessel and, except for a small amount of residuals, the liquid metal inventory has been transferred to the Sodium Storage Facility (Building 402).

##### **Interim Decay Storage Vessel (IDS)**

The Interim Decay Storage vessel was designed to provide a controlled environment for temporary storage of core fuel assemblies and reactor components (control rods, reflectors etc.). The IDS is located inside Containment below floor level. All fuel assemblies have been removed from the IDS vessel and, except for a small amount of residuals, the liquid metal inventory has been transferred to the Sodium Storage Facility.

##### **RCRA Waste Management Units**

The FFTF has two areas subject to RCRA contingency planning requirements as described below.

##### **Building 403 Fuel Storage Facility (FSF) Treatment, Storage, and/or Disposal (TSD) unit**

Building 403 has received authorization to serve as a TSD unit as part of the 400 Area Waste Management Unit (WMU). The TSD unit is permitted to store approximately 350 gallons of frozen sodium contained in components removed from the Interim Decay Storage Vessel.

### **Interim Storage Area (ISA)**

This area is a fenced gravel area with a concrete pad located east of the Maintenance and Storage Facility (MASF) in the northeast corner of the FFTF PPA. The ISA has received authorization to serve as a TSD unit as part of the 400 Area Waste Management Unit (WMU).

### **Building 402 - Sodium Storage Facility (SSF)**

The Sodium Storage Facility was constructed in 1996 for storage of the metallic sodium from the FFTF plant systems. It serves as an interim storage facility for the frozen sodium when removed from the FFTF until final disposition. The facility is located between the South and West Dump Heat Exchangers. The 28 by 27meter (91 by 90 foot) concrete facility houses three 303,000-liter (80,000 gallon) sodium storage tanks and one 199,000-liter (52,500 gallon) sodium storage tank. The total frozen sodium inventory contained in the four tanks is approximately 247,300 gallons.

## **1.5 BUILDING EVACUATION ROUTING (BUILDING LAYOUT)**

Figures 1 and 2 provide identification of the primary and secondary staging areas and a general layout of the 400 Area WMU. Alternate evacuation routes will be used on a case-by-case basis based on meteorological conditions at the time of the event.

## **2.0 PURPOSE**

This plan describes both the facility hazards and the basic responses to upset and/or emergency conditions within the FFTF. These events may include spills or releases caused by processing, fires and explosions, transportation activities, movement of materials, packaging, storage of hazardous materials, and natural and security contingencies. When used in conjunction with Permit Attachment 4, *Hanford Emergency Management Plan* (DOE/RL-94-02), this plan meets the requirements for contingency planning as required by WAC 173-303. Sections 1.5, 3.1, 4.0, 7.1, 7.1.1, 7.1.2, 7.2, 7.2.1, 7.2.2, 7.2.3, 7.2.4, 7.2.5, 7.2.5.1, 7.3, 8.2, 8.3, 8.4, 9.0, 9.1, 9.2, 9.3, 9.4, 9.5, 9.6, 11.0, 12.0, 13.0 of the Building Emergency Plan (BEP) are enforceable sections meeting RCRA contingency planning requirements. Enforceable sections cannot be changed without coordinating the change with the Permit modification process.

## **3.0 FACILITY/BUILDING EMERGENCY RESPONSE ORGANIZATION**

The FFTF and all associated facilities covered under this plan are unoccupied. The Building Emergency Director (BED) is an on-call position during normal working hours, back-shifts, weekends, and holidays.

### **3.1 BUILDING EMERGENCY DIRECTOR (BED)**

Emergency response will be directed by the BED until the Incident Commander (IC) arrives. The incident command system (ICS) and staff, with supporting on-call personnel, fulfill the responsibilities of the Emergency Coordinator as discussed in WAC 173-303-360. During events, WMU personnel perform response duties under the direction of the BED. The Incident Command Post (ICP) is managed by either the senior Hanford Fire Department member present or senior Hanford Patrol member present on the scene (security events only). These individuals are designated as the IC and as such, have the authority to request and obtain any resources necessary for protecting people and the environment.

The BED becomes a member of the ICP and functions under the direction of the IC. In this role, the BED continues to manage and direct 400 Area WMU operations.

A listing of the BEDs by title, work location, and work telephone number is contained in Section 13.0 of this plan. The BED is on the premises or is available through an "on-call" list 24-hours-a-day. Names and home telephone numbers of the BEDs are available from the Patrol Operations Center (POC) in accordance with Permit Condition II.A.4.

### **3.2 OTHER MEMBERS**

As a minimum, Facility Management appoints and ensures training is provided to individuals to perform as Personnel Accountability Aides and Staging Area Managers. The Personnel Accountability Aides are responsible for facilitating the implementation of protective actions (evacuation or take cover) and for facilitating the accountability of personnel after the protective actions have been implemented. Staging Area Managers are responsible for coordinating and conducting activities at the staging area. In addition, the BED can identify additional support personnel (radiological control, maintenance, engineering, hazardous material coordinators, etc.) to be part of the Facility/Building Emergency Response Organization.

The complete Facility/Building Emergency Response Organization listing of positions, names, work locations and telephone numbers for the FFTF is maintained in a separate location in a format determined appropriate by S&M management. Copies are distributed to appropriate FFTF locations and to Emergency Preparedness.

## **4.0 IMPLEMENTATION OF THE PLAN**

In accordance with WAC 173-303-360(2)(b), the BED ensures that trained personnel identify the character, source, amount, and areal extent of the release, fire, or explosion to the extent possible. Identification of waste can be made by activities that can include, but are not limited to, visual inspection of involved containers, sampling activities in the field, reference to inventory records, or by consulting with facility personnel. Samples of materials involved in an emergency might be taken by qualified personnel and analyzed as appropriate. These activities must be performed with a sense of immediacy and shall include available information.

The BED shall use the following guidelines to determine if an event has met the requirements of WAC 173-303-360(2)(d):

1. The event involved an unplanned spill, release, fire, or explosion,  
AND
- 2.a The unplanned spill or release involved a dangerous waste, or the material involved became a dangerous waste as a result of the event (e.g., product that is not recoverable.),  
OR
- 2.b The unplanned fire or explosion occurred at the 400 Area WMU or transportation activity subject to RCRA contingency planning requirements,  
AND
3. Time-urgent response from an emergency services organization was required to mitigate the event, or a threat to human health or the environment exists.

As soon as possible after stabilizing event conditions, the BED shall determine, in consultation with the site contractor environmental single-point-of-contact, if notification to the Washington State Department of Ecology (Ecology) is needed to meet WAC 173-303-360 (2)(d) reporting requirements. If all of the conditions under 1, 2, and 3 are met, notifications are to be made to Ecology. Additional information is found in Permit Attachment 4, *Hanford Emergency Management Plan* (DOE/RL-94-02), Section 4.2.

If review of all available information does not yield a definitive assessment of the danger posed by the incident, a worst-case condition will be presumed and appropriate protective actions and notifications will be initiated. The BED is responsible for initiating any protective actions based on their best judgment of the incident.

The BED must assess each incident to determine the response necessary to protect the personnel, facility, and the environment. If assistance from Hanford Patrol, Hanford Fire Department, or ambulance units is required, the Hanford Emergency Response Number (911 from site office phones/373-0911 from cellular phones) must be used to contact the POC and request the desired assistance. To request other resources or assistance from outside the 400 Area WMU, the POC business number is used (373-3800).

## **5.0 FACILITY HAZARDS**

### **5.1 HAZARDOUS MATERIALS**

The only significant bulk hazardous material at FFTF is solid sodium. The material usage, location, and estimated quantities are summarized below.

<b>MATERIAL</b>	<b>USAGE/LOCATION</b>	<b>APPROXIMATE QUANTITY</b>	<b>PRIMARY HAZARD</b>
Sodium (solid)	SSF and residual frozen sodium remaining in piping and cold traps	936,100 liters (247,300 gallons)	Reactivity

Other hazardous materials at the facility include ethylene glycol and petroleum products. Specific locations of chemical products may be obtained from the facility chemical coordinator. MSDS data sheets are maintained electronically using current Hanford Site data bases.

## **5.2 INDUSTRIAL HAZARDS**

Industrial hazards that may be encountered at FFTF include confined spaces, rotating equipment, and asbestos in some building materials:

Because the ventilation system is not normally operated and the possibility of a cover gas leak, there is the potential for an oxygen deficiency to be encountered in below grade spaces. Oxygen monitors are required for building entries.

## **5.3 DANGEROUS/MIXED WASTE**

S&M Regulatory Compliance maintains a specific list of dangerous waste, mixed waste, and radioactive waste accumulated/stored at FFTF. As identified in the Surveillance and Maintenance Plan for the Fast Flux Test Facility (FFTF) (DOE/RL-2009-26, Rev. 0 April 2009), dangerous waste generation and disposal are not expected during S&M. If waste is generated, it will be handled in compliance with the applicable Federal, State, and local environmental laws and regulations, and DOE orders. A brief description of wastes commonly stored is as follows (this list is not intended to be all-inclusive and may vary to support the needs or operations of the facility):

<b>WASTE TYPE</b>	<b>LOCATION</b>
Radioactive sodium waste and sodium hydroxide in Building 403 (FSF) and the ISA A mixed-waste drum containing small amounts of NaK is located on the ISA pad.	Building 403 (FSF) and ISA Treatment, Storage, and Disposal Units

## **5.4 RADIOACTIVE MATERIALS**

Radioactive materials are stored in Buildings 402, 403, 405, and in the ISA.

## **5.5 CRITICALITY**

Criticality is not a credible event at the FFTF.

## **6.0 POTENTIAL EMERGENCY CONDITIONS**

Potential emergency conditions, under both WAC 173-303 and DOE, may include one of three basic categories: (1) operations (process upsets, fires, explosions, loss of utilities, spills, and releases), (2) natural phenomena (e.g., earthquakes), and (3) security contingencies (bomb threat, hostage situation, etc.). The following are conditions that may lead to an emergency at the FFTF.

### **6.1 FACILITY OPERATIONS EMERGENCIES**

#### **6.1.1 Loss of Utilities**

A loss of utilities is not expected to lead to an emergency condition or require implementation of protective actions. During Surveillance and Maintenance (S&M) mode the fire detection system is the only continuously powered system. Lighting and Heating and Ventilation (H&V) are only energized during plant entries for surveillance and/or maintenance.

#### **6.1.2 Major Process Disruption/Loss of Plant Control**

There are no plant process failures or malfunctions that are expected to lead to an emergency condition or require implementation of protective actions.

#### **6.1.3 Pressure Release**

There are no pressure containing systems at FFTF that would result in a potential emergency condition.

#### **6.1.4 Fire and/or Explosion**

A fire or explosion would require the affected building to be evacuated. A fire or explosion in an area containing hazardous material or dangerous waste could generate environmental release concerns.

The sodium systems containing bulk quantities of frozen sodium are maintained with an inert gas blanket. A breach of these systems is considered to be unlikely and if any breach did occur, it would be very small and the leakage of cover gas would be made up by the cover gas supply system. A larger breach that may introduce air into the sodium systems would result in only a minor reaction between the sodium and oxygen or water vapor in the air and would not present a significant hazard. A large rapid sodium-water reaction event is not considered credible considering the low probability of a large system breach combined with the low probability of significant water accumulation (considering the draining of all water systems in the plant, the arid Hanford climate, and the periodic inspection of vulnerable locations).

#### **6.1.5 Hazardous Material Spill**

The most significant hazardous material release would come from a sodium leak. Since all of the remaining sodium at FFTF is frozen, a sodium leak has been determined to be an unlikely event. Other hazardous material spills would be limited to local areas and mitigated by plant design but may require time urgent response to minimize environmental impact.

#### **6.1.6 Dangerous/Mixed Waste Spill**

Due to the limited quantity of wastes maintained at the facility, there are no dangerous waste or mixed waste spills identified that could generate a DOE declared emergency or are likely to create a RCRA emergency at FFTF. However, in the event of a waste spill the consequences would be very localized and necessary mitigating measures minimal.

#### **6.1.7 Transportation and/or Packaging Incidents**

Due to the receipt of some hazardous materials and the shipment of wastes, a transportation incident is possible. The effects of a shipment event would be the same as those for hazardous material or dangerous/mixed waste events except no shipments are made which could generate a DOE declared emergency.

#### **6.1.8 Radioactive Material Release**

##### **6.1.8.1 Radioactive Liquid Waste Spill**

Due to the location of system piping and components, a radioactive liquid waste spill outside of facility structures to the environment is unlikely. There are no identified scenarios involving radioactive liquid waste that would generate an emergency condition.

#### **6.1.9 Criticality**

Criticality is not a credible event at the FFTF.

### **6.2 NATURAL PHENOMENA**

Natural phenomena are discussed in the following sections.

#### **6.2.1 Seismic Event**

Depending on the magnitude of the event, severe structural damage can occur resulting in serious injuries or fatalities and the release of hazardous materials to the environment. Damaged electrical circuits and wiring could result in the initiation of fires.

#### **6.2.2 Volcanic Eruption/Ash fall**

Though not expected to cause structural damage, the ash resulting from a volcanic eruption could cause shorts in electrical equipment and plug ventilation system filters.

#### **6.2.3 High Winds/Tornados**

High winds or tornados may cause structural damage to systems containing hazardous materials resulting in a release of the materials to the environment.



#### **6.2.4 Flood**

Flooding can cause the release of hazardous materials depending on the type of storage containers. Floods can also cause short circuits in electrical wiring located at or below ground level. This may then result in an increased likelihood of fires. However, the 400 Area is well above projected flood elevations for the Columbia and Yakima Rivers, therefore, a flood is not considered a credible natural event for the FFTF.

#### **6.2.5 Range Fire**

The hazards associated with a range fire are the same as those associated with a building fire plus potential site access restrictions and travel hazards such as poor visibility.

#### **6.2.6 Aircraft Crash**

In addition to the potential for serious injuries or fatalities, an aircraft crash could result in the direct release of hazardous materials to the environment or cause a fire that could lead to the release.

### **6.3 SECURITY CONTINGENCIES**

Security contingencies are discussed in the following sections.

#### **6.3.1 Bomb Threat/Explosive Devices**

A bomb threat may be received by anyone who answers the telephone or receives mail. The major effect on the FFTF is that systems may need to be placed in a safe configuration prior to an evacuation. If an explosive device detonates, the effects are the same as those discussed under fire and explosion.

#### **6.3.2 Hostage Situation/Armed Intruder**

A hostage situation or the entry of an armed hostile intruder(s) into the building or facility can pose an emergency if either of these conditions has the potential to adversely affect facility operations.

#### **6.3.3 Suspicious Object**

If a suspicious object is discovered, the major effect on the FFTF is that personnel may need to perform an emergency shutdown of the facility before evacuation.

### **6.4 UNEXPECTED/UNIDENTIFIED ODORS**

Unexpected or unidentified odors have the potential to cause health effects and could be indicative of other events.

## **7.0 INCIDENT RESPONSE**

The initial response to any emergency is to immediately protect the health and safety of persons in the affected area. Identification of released material is essential to determine appropriate protective actions. Containment, treatment, and disposal assessment are secondary responses.

The following sections describe the process for implementing basic protective actions as well as descriptions of response actions for the events listed in Section 6.0 of this plan. Permit Attachment 4, *Hanford Emergency Management Plan (DOE/RL-94-02)*, Section 1.3, provides concept of operations for emergency response on the Hanford Site.

This section provides a discussion of protective action responses, response to facility operations emergencies, response to natural phenomena, and response to security contingencies. In addition, a section addressing prevention of secondary release, fires or explosions is provided.

### **7.1 PROTECTIVE ACTION RESPONSES**

Protective action responses are discussed in the following sections. The steps identified in the following description of actions do not have to be performed in sequence because of the unanticipated sequence of incident events.

#### **7.1.1 Evacuation**

When a Fast Flux Facility (FFTF) evacuation is ordered or the evacuation siren sounds, non-essential employees will turn off office equipment, obtain car keys and proceed to the staging area. Essential personnel are those who have been previously designated as having an emergency response role, are assigned to the on-shift Operations crew, or are utilized by the Emergency Response Organization during the event (e.g., RCTs, Stationary Operating Engineers). Once at the staging area, personnel will report to their prescribed location to allow for accountability. Personnel with physical handicaps should have monitors assigned as necessary to assist them during an evacuation.

Personnel in protective clothing when an evacuation alarm sounds should make an effort to undress at the normal undress area if safe to do so. These personnel must remain separated from others, and report to the Contaminated Personnel staging sign located outside the north end of 4713-B, next to the Tool Crib door. An RCT will be dispatched to that location to survey personnel. If directed to the alternate staging area, it is recommended that personnel remove and leave protective clothing in the parking lot prior to entering their vehicle and upon arrival at the alternate staging area remain segregating from others and notify staging area personnel of the situation.

Personnel performing significant plant operations when an evacuation is initiated shall place the equipment in a stable configuration if safe to do so and then respond as appropriate to the evacuation.

The locations of the staging areas are shown on the illustrations in Figures 1 and 2. Within each occupied building the exits are clearly marked and evacuation routes to the staging area are maintained clear of obstacles. The supervisor (or delegate) is responsible for ensuring accountability of personnel at the ISA or FSF.

The BED will normally contact the POC to inform them of the event and ensure that necessary onsite and offsite protective actions are initiated. If additional transportation is needed for personnel, the BED may coordinate for additional transportation through RL-EOC.

#### **7.1.2 Take Cover**

The site area siren will sound to notify personnel of the need to take cover. Personnel shall respond to the first take cover signal sounded. The BED will normally contact the POC to inform them of the event and ensure that necessary onsite and offsite protective actions are initiated.

When the "Take Cover" Alarm is activated, personnel shall take cover in the nearest suitable (consider water supply, bathroom facilities, size, etc.) building or trailer, halt work, and if able place equipment in a safe condition. Close windows, exterior doors, interior doors, and/or window blinds for offices with windows, and secure heating, ventilation, and air conditioning (HVAC). If possible, personnel should move to interior hallways, and follow normal exit procedures from radiologically controlled areas in preparation for evacuation.

### **7.2 RESPONSE TO FACILITY OPERATIONS EMERGENCIES**

Depending on the severity of the event, the BED reviews the site-wide and FFTF emergency response procedure(s) and, as required, categorizes and/or classifies the event. If necessary, the BED initiates area protective actions and Hanford Site Emergency Response Organization activation. The steps identified in the following description of actions do not have to be performed in sequence because of the unanticipated sequence of incident events.

#### **7.2.1 Loss of Utilities**

A loss of utilities is not expected to lead to an emergency condition or require implementation of protective actions.

A case-by-case evaluation is required for each event to determine loss of utility impacts. When a BED determines a loss of utility impact, actions are taken to ensure dangerous and/or mixed waste is being properly managed, to the extent possible given event circumstances. As necessary, the BED will stop operations and take appropriate actions until the utility is restored.

#### **7.2.2 Major Process Disruption/Loss of Plant Control**

There are no process upsets or losses of plant control that can have any effect at FFTF (including the 400 Area WMU). The FFTF facility has been deactivated and is currently being operated in accordance with the approved Surveillance & Maintenance Plan.

#### 7.2.3 Pressure Release

There are no pressure containing systems at FFTF that would result in a potential emergency condition.

#### 7.2.4 Fire and/or Explosion

In the event of a fire, the discoverer activates a fire alarm (pull box); calls 911 from site office phones/373-0911 from cellular phones or verifies that the Hanford Emergency Response Number (911 or 373-0911) has been called. Automatic initiation of a fire alarm (through the smoke detectors ) is also possible.

- Unless otherwise instructed, personnel shall evacuate the area/building by the nearest safe exit and proceed to the designated staging area for accountability.
- On actuation of the fire alarm, ONLY if time permits, personnel should shut down equipment, and secure waste. The alarm automatically signals the Hanford Fire Department.
- The BED proceeds directly to the ICP, obtains all necessary information pertaining to the incident, and sends a representative to meet Hanford Fire Department.
- The BED provides a formal turnover to the IC when the IC arrives at the ICP.
- The BED informs the Hanford Site Emergency Response Organization as to the extent of the emergency (including estimates of dangerous waste, mixed waste or radioactive material quantities released to the environment).
- If operations are stopped in response to the fire, the BED ensures that systems are monitored for leaks, pressure buildup, gas generation, and ruptures.
- Hanford Fire Department firefighters extinguish the fire as necessary.

#### 7.2.5 Hazardous Material, Dangerous and/or Mixed Waste Spill

Spills can result from many sources including process leaks, container spills or leaks, damaged packages or shipments, or personnel error. Spills of mixed waste are complicated by the need to deal with the extra hazards posed by the presence of radioactive materials.

- The discoverer notifies the BED and initiates SWIMS response:
  - Stops work,
  - Warns others in the vicinity,
  - Isolates the area
  - Minimizes exposures to the hazards
  - Requests the BED Secure ventilation.
- The BED determines if emergency conditions exist requiring response from the Hanford Fire Department based on classification of the spill and injured personnel, and evaluates the need to perform additional protective actions.
- If the Hanford Fire Department resources are not needed, the spill is mitigated with resources identified in Section 9.0 of this plan and proper notifications are made.

- If the Hanford Fire Department resources are needed, the BED calls 911 from site office phones /373-0911 from cellular phones.
- The BED sends a representative to meet the Hanford Fire Department.
- The BED provides a formal turnover to the IC when the IC arrives at the ICP.
- The BED informs the Hanford Site Emergency Response Organization as to the extent of the emergency (including estimates of dangerous waste, mixed waste, or radioactive material quantities released to the environment).
- If operations are stopped in response to the spill, the BED ensures that systems are monitored for leaks, pressure buildup, gas generation, and ruptures.
- Hanford Fire Department stabilizes the spill.

#### **7.2.5.1 Damaged or Unacceptable Shipments**

During the course of receiving an onsite transfer of mixed waste at the 400 Area WMU, an unanticipated event could be discovered resulting in a conformance issue concerning the waste. Damaged or unacceptable shipments resulting from onsite transfers are not subject to WAC 173-303-370; however, conformance issues must be resolved in order to maintain proper records.

The following actions are taken to resolve the conformance issue:

- Operations management is notified of the damaged or unacceptable waste to be received.
- If the conformance issue results in a spill or release, actions described in Section 7.2.5 are taken.
- The generating organization is notified of the conformance issue.
- An operations representative, in conjunction with the generating organization, determines the course of action to resolve the conformance issue.

#### **7.2.6 Radioactive Material Release**

Significant Contamination Spread. Stop work activities and immediately exit the area. Contact RC and stand by for survey and contamination status. Notify immediate manager and the BED.

#### **7.2.7 Criticality**

Criticality is not a credible event at the FFTF; therefore, no response planning is necessary in this area.

### **7.3 PREVENTION OF RECURRENCE OR SPREAD OF FIRES, EXPLOSIONS, OR RELEASES**

The BED, as part of the ICP, takes the steps necessary to ensure that a secondary release, fire, or explosion does not occur. The BED will take measures, where applicable, to stop processes and operations; collect and contain released wastes and remove or isolate containers. The BED shall also monitor for leaks, pressure buildups, gas generation, or ruptures in valves, pipes or other equipment, whenever this is appropriate.

### **7.4 RESPONSE TO NATURAL PHENOMENA**

Depending on the severity of the event, the BED reviews Sitewide and FFTF emergency response procedure(s) and, as required, categorizes and/or classifies the event. If necessary, the BED initiates area protective actions and Hanford Site Emergency Response Organization activation. The steps identified in the following description of actions do not have to be performed in sequence because of the unanticipated sequence of incident events. Attachment A provides a list of procedures.

#### **7.4.1 Seismic Event**

The Hanford Site Emergency Response Organization's primary role in a seismic event is coordinating the initial response to injuries, fires, fire hazards and acting to contain or control radioactive and/or hazardous material releases.

Individuals should remain calm and stay away from windows, steam lines, and hazardous material storage locations. Once the shaking has subsided, individuals should evacuate carefully and assist personnel needing help. The location of any trapped individuals should be reported to the BED or is reported to 911 from site office phones/373-0911 from cellular phones.

The BED takes whatever actions are necessary to minimize damage and personnel injuries. Responsibilities include the following:

- Coordinating searches for personnel and potential hazardous conditions (fires, spills, etc.).
- Conducting accountability.
- Securing utilities and facility operations.
- Arranging rescue efforts, and notifying 911 for assistance.
- Determining if hazardous materials were released.
- Determining current local meteorological conditions.
- Warning other facilities and implementing protective actions if release of hazardous materials poses an immediate danger.

- Providing personnel and resource assistance to other facilities, if required and possible.

#### **7.4.2 Volcanic Eruption/Ash fall**

When notified of an impending ash fall, the BED will implement measures to minimize the impact of the ash fall. BED actions include the following:

- Installing filter media over building ventilation intakes.
- Installing filter media or protective coverings on outdoors equipment that may be adversely affected by the ash (diesel generators, equipment rooms, etc.).
- Shutting down some or all operations and processes.
- Sealing secondary use exterior doors.

If other emergency conditions arise as a result of the ash fall (e.g., fires due to electrical shorts or lightning), response is as described in other sections of this plan.

#### **7.4.3 High Winds/Tornadoes**

Upon notification of impending high winds, the BED takes steps necessary to secure all outdoor waste and hazardous material containers and storage locations. All doors and windows are shut, and personnel are warned to use extreme caution when entering or exiting the building. Ventilation, utilities, and operations will be shut down as appropriate to lessen the severity of the impact.

#### **7.4.4 Flood**

Not applicable.

#### **7.4.5 Range Fire**

Responses to range fires are handled by preventive measures (i.e., keeping hazardous material and waste accumulation areas free of combustible materials such as weeds and brush). If a range fire breaches the FFTF boundary, the response is as described in Section 7.2.4.

#### **7.4.6 Aircraft Crash**

The response to an aircraft crash is the same as for a fire and/or explosion (Section 7.2.4).

## **7.5 SECURITY CONTINGENCIES**

Depending on the severity of the event, the BED reviews Sitewide and FFTF emergency response procedure(s) and, as required, categorizes and/or classifies the event. If necessary, the BED initiates area protective actions and Hanford Site Emergency Response Organization activation. The steps identified in the following description of actions do not have to be performed in sequence because of the unanticipated sequence of incident events. Attachment A provides a list of procedures.

### **7.5.1 Bomb Threat/Explosive Device**

Response to a bomb threat/explosive device is discussed in the following sections.

#### **7.5.1.1 Telephone Threat**

Individuals receiving telephoned threats attempt to get as much information as possible from the caller (using the bomb threat checklist if available). Upon conclusion of the call, or during the call if possible, notify the BED and Hanford Patrol by calling 911 (do not use wireless communications devices for reporting a bomb threat/explosive device unless beyond 300 feet from the suspected object).

When notified, the BED ensures the FFTF is evacuated and questions personnel at the staging area regarding any suspicious objects. When Hanford Patrol personnel arrive, follow their instructions.

#### **7.5.1.2 Written Threat**

Receivers of written threats handle the letter as little as possible. Notify the BED and Hanford Patrol by calling 911 (do not use wireless communications devices for reporting a bomb threat/explosive device unless beyond 300 feet from the suspected object). Depending on the content of the letter, the BED might evacuate the affected locations. The letter is turned over to Hanford Patrol and their instructions are followed.

### **7.5.2 Hostage Situation/Armed Intruder**

The discoverer of a hostage situation or armed intruder reports the incident to 911 from site office phones/373-0911 from cellular phones and to the BED if possible. Hanford Patrol will determine the remaining response actions.

### **7.5.3 Suspicious Object**

The discoverer of a suspicious object reports this object to the BED and to 911 (do not use wireless communications devices for reporting a bomb threat/explosive device unless beyond 300 feet from the suspected object), if possible, and ensures that the object is not disturbed.



## **7.6 RESPONSE TO UNEXPECTED/UNIDENTIFIED ODORS**

Unexpected and unidentified odors should be investigated by the facility or project safety and health personnel. If the odor can be traced to an identifiable source and controlled safely with local resources, it can be resolved at the facility level. Air monitoring may aid in identification of a source and help determine if the odor is indicative of a health threat or is merely a nuisance. If facility or project safety and health personnel concur that the odor may be indicative of a health threat and cannot be safely controlled with local resources or an odor is found to be the result of an action or condition that requires emergency response, the Hanford Fire Department would be notified and respond accordingly.

## **8.0 TERMINATION OF EVENT, INCIDENT RECOVERY, AND RESTART OF OPERATIONS**

Permit Attachment 4, *Hanford Emergency Management Plan* (DOE/RL-94-02), Section 9.0, describes actions for event termination, incident recovery, and restart of operations. The extent by which these actions are employed is based on the incident classification of each event. In addition, Permit Attachment 4, *Hanford Emergency Management Plan* (DOE/RL-94-02) also contains actions for the management of incompatible wastes that might apply.

### **8.1 TERMINATION OF EVENT**

For events where the Hanford Emergency Operations Center (Hanford-EOC) is activated, the DOE RL or DOE Office of River Protection Emergency Manager has the authority to declare event termination. This decision is based on input from the BED, IC, and other emergency response organization members. For events where the Hanford-EOC is not activated, the ICS and staff will declare event termination.

### **8.2 INCIDENT RECOVERY AND RESTART OF OPERATIONS**

A recovery plan is developed when necessary in accordance with Permit Attachment 4, *Hanford Emergency Management Plan* (DOE/RL-94-02), Section 9.2. A recovery plan is needed following an event where further risk could be introduced to personnel, the FFTF (including the 400 Area WMU), or the environment through recovery action and/or to maximize the preservation of evidence.

If this plan was implemented according to Section 4.0, Ecology must be notified before operations can resume. Permit Attachment 4, *Hanford Emergency Management Plan* (DOE/RL-94-02), Section 5.1 discusses different reports to outside agencies. This notification is in addition to those required reports and must include the following statements.

- There are no incompatibility issues with the waste and released materials from the incident.
- All the equipment has been cleaned, fit for its intended use, and placed back into service.

The notification required by WAC 173-303-360(2)(j) may be made via telephone conference. Additional information that Ecology requests regarding these restart conditions will be included in the required 15-day report identified in Section 11.0 of this plan.

For emergencies not involving activation of the Hanford-EOC, the BED ensures that conditions are restored to normal before operations are resumed. If the Hanford Site Emergency Response Organization was activated and the emergency phase is complete, a special recovery organization could

be appointed at the discretion of DOE to restore conditions to normal. This process is detailed in DOE and contractor emergency procedures. The makeup of this organization depends on the extent of the damage and its effects. The onsite recovery organization will be appointed by the appropriate contractor's management.

### **8.3 INCOMPATIBLE WASTE**

After an event, the BED or the onsite recovery organization ensures that no waste that might be incompatible with the released material is treated, stored, and/or disposed of until cleanup is completed. Clean up actions are taken by 400 WMU personnel or other assigned personnel. Permit Attachment 4, *Hanford Emergency Management Plan* (DOE/RL-94-02), Section 9.2.3 describes actions to be taken.

Waste from cleanup activities is designated and managed as newly generated waste. A field check for compatibility before storage is performed, as necessary. Incompatible wastes are not placed in the same container. Containers of waste are placed in approved storage areas appropriate for their compatibility class.

If incompatibility of waste was a factor in the incident, the BED or the onsite recovery organization ensures that the cause is corrected.

### **8.4 POST EMERGENCY EQUIPMENT MAINTENANCE AND DECONTAMINATION**

All equipment used during an incident is decontaminated, if practicable, or disposed of as spill debris. Decontaminated equipment is checked for proper operation before storage for subsequent use. Consumable and disposed materials are restocked. Fire extinguishers are replaced.

The BED ensures that all equipment is cleaned and fit for its intended use before operations are resumed. Depleted stocks of neutralizing and absorbing materials are replenished, protective clothing is cleaned or disposed of and restocked, etc.

### **9.0 EMERGENCY EQUIPMENT**

Emergency resources and equipment for the FFTF (including the 400 Area WMU) are presented in this section.

#### **9.1 FIXED EMERGENCY EQUIPMENT**

None refer to Section 9.2.

**9.2 PORTABLE EMERGENCY EQUIPMENT**

PORTABLE EMERGENCY EQUIPMENT		
TYPE	LOCATION	CAPABILITY
Fire Extinguisher	A fire extinguisher is available at the ISA pad (inside the locked fenced area on the fence near the gate) and at the FSF building (adjacent to the entrance).	Portable Class D fire extinguishers are available for use to respond to fires at the FSF and the ISA
Emergency Response Kit	<p>An emergency response kit is maintained at the facility.</p> <p>All personnel entering the noted areas, regardless of the type of work being performed, must be made aware of the emergency kit location prior to entering the areas.</p>	Boundary control, PPE for response, first aid kit, and emergency lights.

**9.3 COMMUNICATIONS EQUIPMENT/WARNING SYSTEMS**

COMMUNICATIONS EQUIPMENT		
TYPE	LOCATION	CAPABILITY
Fire Alarm Continuous Ringing Bell Or Electronic Gong And Strobe or Area siren	<p>Fire alarm – at or near building exits in buildings 405; 491E, S, &amp; W; 4621E &amp; W; and 4703.</p> <p>Siren alert – The siren can be clearly heard by personnel at the ISA and by support personnel at the FSF when staff are in the building.</p> <p>When appropriate, personnel at the FSF and ISA will be notified of fire alarms at the 400 Area.</p>	Alerts personnel of a potential fire or other emergency notifications in their area.

COMMUNICATIONS EQUIPMENT		
TYPE	LOCATION	CAPABILITY
2-Way radio/cell phone	At least one with personnel while in the TSD unit location.	Notify personnel to summon emergency assistance.
Argon pressure monitoring system	FFTF argon dewar pad located on a pad west of the main FFTF Plant.	Notify personnel of over or under pressure in the inert cover gas for piping and components containing sodium residuals.

Note: Sitewide communications and warning systems are identified in Permit Attachment 4, *Hanford Emergency Management Plan* (DOE/RL-94-02), Table 5.1.

#### 9.4 PERSONAL PROTECTIVE EQUIPMENT

PERSONAL PROTECTIVE EQUIPMENT		
TYPE	LOCATION	CAPABILITY
Personnel Protective Equipment	Personal Protective Equipment is available and will be staged when work is performed at the 400 Area WMU location.	Protection from various hazards (e.g. smoke, fumes, oxygen deficient atmosphere, chemicals, high airborne radioactivity, radiological contamination, insufficient lighting). PPE clothing can be based specific job requirements.

#### 9.5 SPILL CONTROL AND CONTAINMENT SUPPLIES

SPILL KITS AND SPILL CONTROL EQUIPMENT		
TYPE	LOCATION	CAPABILITY
<ul style="list-style-type: none"> <li>Spill Control Materials</li> <li>Absorbent materials</li> <li>Bags</li> <li>Step-off pads</li> <li>Barrier tape</li> <li>Rags</li> <li>Scissors</li> </ul>	<p>One spill kit will be located at the 400 Area WMU and will be clearly identified.</p> <p>All personnel entering either the ISA or FSF will be made aware of the location of the spill kit.</p>	Control and mitigation of radioactive and chemical spills.

## **9.6 INCIDENT COMMAND POST**

The ICPs can be identified in a fixed location or the IC can determine a location appropriate for the event. Emergency resource materials are stored at each location. The IC could activate the Hanford Fire Department Mobile Command Unit if necessary.

## **10.0 COORDINATION AGREEMENTS**

RL has established a number of coordination agreements or memoranda of understanding (MOU) with various agencies to ensure proper response resource availability for incidents involving the Hanford Site. A description of the agreements is contained in Permit Attachment 4, *Hanford Emergency Management Plan* (DOE/RL-94-02), Section 3.0, Table 3-1.

## **11.0 REQUIRED REPORTS**

Post incident written reports are required for certain incidents on the Hanford Site. The reports are described in Permit Attachment 4, *Hanford Emergency Management Plan* (DOE/RL-94-02), Section 5.1.

Facility management must note in the TSD-unit operating record, the time, date, and details of any incident which requires implementation of the contingency plan. Within 15 days after the incident, a written report must be submitted to Ecology. The report must, at a minimum, include the elements specified in WAC 173-303-360(2)(k).

## **12.0 PLAN LOCATION AND AMENDMENTS**

Copies of this plan are maintained in following locations

- MO-294.

This plan will be reviewed and immediately amended as necessary, in accordance with Permit Attachment 4, *Hanford Emergency Management Plan* (DOE/RL-94-02), Section 14.3.1.1.

## **13.0 BUILDING EMERGENCY ORGANIZATION**

### **BUILDING EMERGENCY DIRECTOR**

FFTF BEDs		
TITLE	WORK LOCATION	WORK PHONE
Facility Operations	MO-294	373-1355

Names and home telephone numbers of the BEDs are available from the POC (373-3800) in accordance with Permit Condition II.A.4.

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**CENTRAL PLATEAU/ Surveillance and Maintenance (S&M)**

**Document:**

**HNF-IP-0263-FFTF**

**Revision**

**23**

**BUILDING EMERGENCY PLAN**

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**FOR FFTF PROPERTY PROTECTION AREA**

**Effective Date:**

**October 20, 2013**

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#### **14.0 REFERENCES**

*DOE/RL-94-02, Hanford Emergency Management Plan*

DOE O 231.1A, "*Environment, Safety, and Health Reporting*", U.S. Department of Energy, Washington D.C.

DOE M 231.1-2, "*Occurrence Reporting and Processing of Operations Information*", U.S. Department of Energy, Washington D.C.

WAC 173-303, "*Washington State Dangerous Waste Regulations*," *Washington Administrative Code*, Washington State Department of Ecology, Olympia, Washington

*Ecology, Hanford Facility Resource Conservation and Recovery Act Permit for the Treatment, Storage, and Disposal of Dangerous Waste, Permit Number WA7890008967, Washington State Department of Ecology, Olympia, Washington, as amended.*

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**CENTRAL PLATEAU/ Surveillance and Maintenance (S&M)**

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**ATTACHMENT A**

**Listing of Procedures**

DOE-0223, Emergency Plan Implementing Procedures, RLEP 1.1, "Hanford Incident Command System and Event Recognition and Classification"

DOE-0223, Emergency Plan Implementing Procedures, RLEP 3.4, "Emergency Termination, Reentry, and Recovery"

PRC-PRO-EM-40325, "Radiological/Chemical Hazard Event Response"

FIGURE 1

FFTF Primary Staging Area

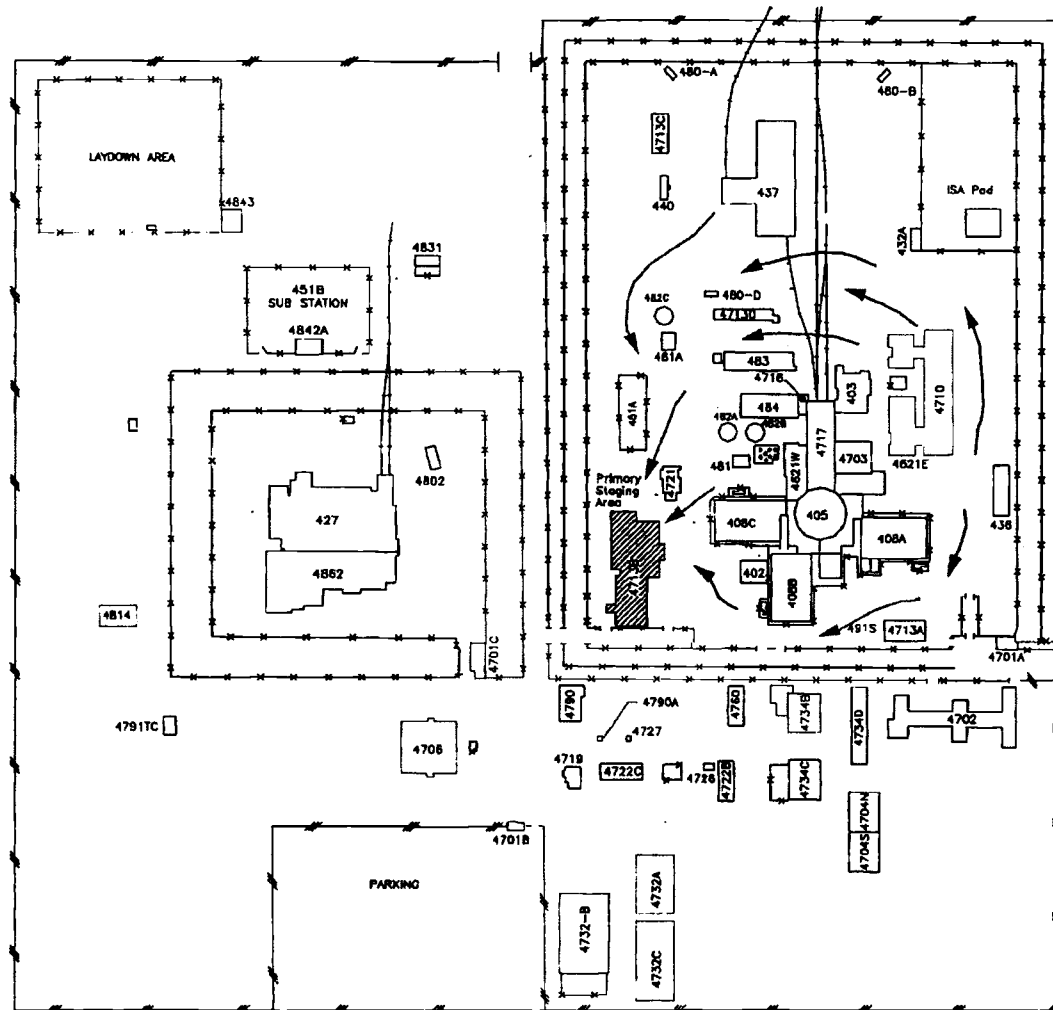
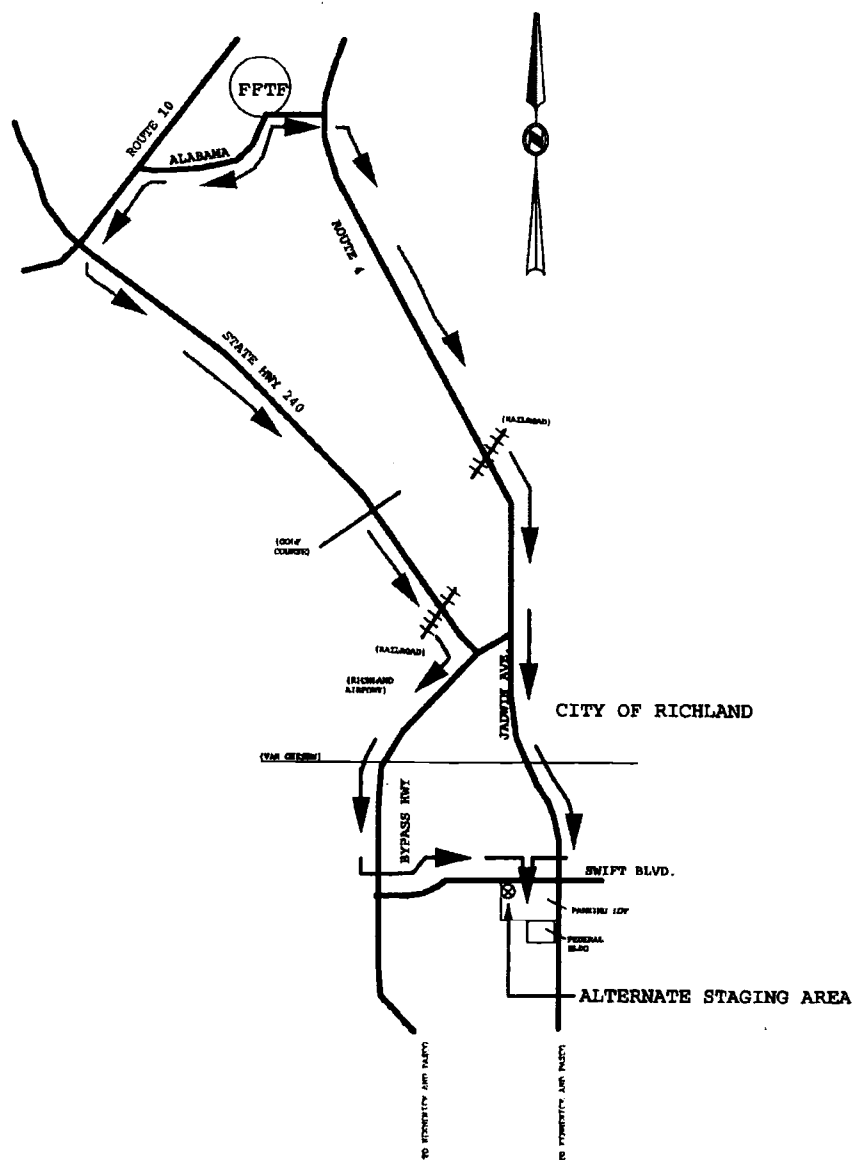




Figure 2  
FFTF Alternate Staging Area



**U.S. ENVIRONMENTAL PROTECTION AGENCY**  
**INSPECTION OF 400 AREA WMU, 440-PAD, AND MASF**  
**DOCUMENTS AND INFORMATION REQUEST**  
**MAY 21, 2014**

**INSPECTION REQUEST NUMBER 7**

Container PIN # 0016549 NaK Container location, open container, and NaK liquid quantity within container.

U.S. ENVIRONMENTAL PROTECTION AGENCY INSPECTION OF THE 400 AREA WASTE MANAGEMENT AREA  
TREATMENT, STORAGE AND DISPOSAL UNIT  
INSPECTION REQUEST NUMBER 7

MAY 21, 2014

PHOTOGRAPHS OF CONTAINER PIN NUMBER 0016549 - NaK PRESSURE TRANSDUCERS CONTAINER CONTENTS  
NaK LIQUID QUANTITY WITHIN THE CONTAINER



Container PIN 0016549 inside ISA Connex Box



Container Contents - NaK pressure transducers

The NaK liquid quantity sealed within the transducers in this container is approximately = 0.2 Gallons

**U.S. ENVIRONMENTAL PROTECTION AGENCY**  
**INSPECTION OF 400 AREA WMU, 440-PAD, AND MASF**  
**DOCUMENTS AND INFORMATION REQUEST**  
**MAY 21, 2014**

**INSPECTION REQUEST NUMBER 8**

Copies of the "Solid Waste Information and Tracking System Container Listing Report" PINs for containers that are currently stored in the FSF.

## Solid Waste Information and Tracking System

SWIR310

## Container Listing Report

05/27/2014 10:24

for Package ID: 23432-1

Page 1 of 4

Source Facility:

Location Facility:

Shipment #:

Package ID: 23432-1	Secondary Pkg ID:	Accumulation Date: 07/19/2006
Waste Type: D LLW	Phys State Cd: S	Deadline Date: 10/16/2006
Sec Waste Type: LLW	UHC Determination:	Ship Date:
Encasement/HIC#:	UHC's Applicable:	TSD Receive Date:
Profile / Rev#: TBD - 00	NFPA < 93.3C:	TSD Accept Date:
WSRd / Rev #: -	Storage Category:	Disposal Date:
CCP Control?:		

Routine Status: 100 Non-Routine / Other

Container Type / Descr: CM / 14.3*7.33*8	Container Empty Tare Wt. (kg): 3628.8000
Container Volume (cu. meters): 23.7500	Waste Weight (kg): 4626.7000
Labpack Flag: N	Container Gross Wt. (kg): 8255.5000
Container Contents: CORE COMPONENT POTS (CCP) WITH <200 GALS RAD-CONTAMINATED SODIUM (MAX OF 3.7 GALS PER CCP). BOX IS PRIMARY CONTAINER FOR THE SODIUM INSIDE THE CCP.	
SWO Comments:	

Generator Information

Generating Company: CHPRC CH2M HILL PLATEAU REMEDIATION CO.	Generator ID: 0092501	Generator Group: FFTF
Source Facility: 403	Generator: RJ SWAN	
Generator Comments: CONTAINER SIZE BASED ON CONTAINER (E525-05-152-01). THE CPP IS A CYLINDRICAL CONTAINER PREVIOUSLY USED TO HOLD ASSEMBLIES & OTHER COMPONENTS. EACH CCP HAS BEEN EMPTIED OF SODIUM TO THE EXTEND PRACTICABLE. EACH BOX IS CLOSED WITH ELASTOMER GASKET AND BOLTED FLANGE CLOSURES. AN INERT GAS COVER IS MAINTAINED ON STORAGE OF EACH BOX TO PREVENT CONTACT OF THE METALLIC SODIUM WITH THE WATER VAPOR IN THE AIR. SHIELDING IS PROVIDED FOR WORKER PROTECTION AND TO MEET ALARA REQUIREMENTS. 400 AREA TSD PROFILE DEVELOPED FOR TSD ACCEPTANCE AT THE 400 AREA FUEL STORAGE FACILITY (FSF)..		

Solid Waste Information and Tracking System  
Container Listing Report  
for Package ID: 23432-1  
Source Facility:  
Location Facility:  
Shipment #:

SWIR310  
05/27/2014 10:24  
Page 2 of 4

Hazardous Package Detail

Container Status: Full Flashpoint: n/A pH Value: >12.5 Subpart CC Flag: NA  
DW Numbers: D001 D002 D003

RCRA Reporting

ADWR Stream Description: Sodium Metal -  
Designation Code: DW  
Source Code: G19 Other one-time or intermittent process  
Comment: Decommissioning and Deactivation  
Form Code: W319 Other inorganic solids, specify in comments  
Comment: Sodium Wetted Piping  
Origin Code:  
Residual Mgmt Method:  
Comment:  
Management Method:  
Comment:  
Certification Group:  
Reportable CERCLA?:

Pre-2007 Reporting

Waste Stream: Offsite TSD Waste Stream: RCRA Designated Date:

PCB Package Detail:

PCB Type: PCB Source Concentration (PPM):  
PCB Subtype: PCB Waste Weight (kg):  
PCB Contents: Removed from Service:

## Solid Waste Information and Tracking System

SWIR310

## Container Listing Report

05/27/2014 10:24

for Package ID: 23432-1

Page 3 of 4

Source Facility:

Location Facility:

Shipment #:

Radioactive Package Detail

Waste Category: WC3	snm Waste?:	Thermal Power (w/cu.m.):	8.92789E-05
Combustible Flag:	Shielding:	Neutron Dose Rate (mrem/hr):	
Exceeds ISB Limit: N	Handling:	Contact Dose Rate (mrem/hr):	
NRC Class: A	RSWIMS Container Cnt: 1	Tot Pe-Ci:	.00000E+00
	Excluded from DE-Ci:	ICRP 71 DE-Ci:	4.02134E-05

VOC/Hydrogen Gas Diffusion Detail

H2 Diffusion Release Date:	VOC Hold?:	VOC Resample Date:
----------------------------	------------	--------------------

Current Location Information

Facility ID: 403	Tier Level:	Loc Beg Coordinates - N:
Trench / Unit:	Tier Position:	W:
Module:	GPS Data Flag:	Loc End Coordinates - N:
		W:

Isotope Information

<u>Isotope Number</u>	<u>Isotope Name</u>	<u>Isotope Activity (Ci)</u>
7	Cs-134	5.27000E-04
8	Cs-137	4.32000E-01
13	Co-60	1.96000E-03
56	Na-22	3.01000E-04

Solid Waste Information and Tracking System  
Container Listing Report

for Package ID: 23432-1

Source Facility:

Location Facility:

Shipment #:

SWIR310

05/27/2014 10:24

Page 4 of 4

Waste Component Records

<u>Component ID</u>	<u>Component Text</u>	<u>PPM</u>	<u>Weight (kg)</u>	<u>Weight %</u>
7440-23-5	SODIUM		1193.6886	25.8
GCMETAL	METAL (NONHAZARDOUS)		3433.0114	74.2
			4626.7000	



## Solid Waste Information and Tracking System

SWIR310

## Container Listing Report

05/27/2014 10:25

for Package ID: 23432-2

Page 1 of 4

Source Facility:

Location Facility:

Shipment #:

Package ID: 23432-2	Secondary Pkg ID:	Accumulation Date: 07/19/2006
Waste Type: D LLW	Phys State Cd: S	Deadline Date: 10/16/2006
Sec Waste Type: LLW	UHC Determination:	Ship Date:
Encasement/HIC#:	UHC's Applicable:	TSD Receive Date:
Profile / Rev#: TBD - 00	NFPA < 93.3C:	TSD Accept Date:
WSRd / Rev #: -	Storage Category:	Disposal Date:
CCP Control?:		

Routine Status: 100 Non-Routine / Other

Container Type / Descr:	CM / 14.3*7.33*8	Container Empty Tare Wt. (kg):	3628.8000
Container Volume (cu. meters):	23.7500	Waste Weight (kg):	4626.7000
Labpack Flag:	N	Container Gross Wt. (kg):	8255.5000
Container Contents:	CORE COMPONENT POTS (CCP) WITH <200 GALS OF RAD-CONTAMINATED SODIUM (MAX OF 3.7 GALS PER CCP). BOX IS PRIMARY CONTAINER FOR THE SODIUM INSIDE THE CCP.		

SWO Comments:

Generator Information

Generating Company:	CHPRC CH2M HILL PLATEAU REMEDIATION CO.	Generator ID:	0092501	Generator Group:	FFTF
Source Facility:	403	Generator:	RJ SWAN		
Generator Comments:	CONTAINER SIZE BASED ON CONTAINER (E525-05-152-01). THE CPP IS A CYLINDRICAL CONTAINER PREVIOUSLY USED TO HOLD ASSEMBLIES & OTHER COMPONENTS. EACH CCP HAS BEEN EMPTIED OF SODIUM TO THE EXTEND PRACTICABLE. EACH BOX IS CLOSED WITH ELASTOMER GASKET AND BOLTED FLANGE CLOSURES. AN INERT GAS COVER IS MAINTAINED ON STORAGE OF EACH BOX TO PREVENT CONTACT OF THE METALLIC SODIUM WITH THE WATER VAPOR IN THE AIR. SHIELDING IS PROVIDED FOR WORKER PROTECTION AND TO MEET ALARA REQUIREMENTS. 400 AREA TSD PROFILE DEVELOPED FOR TSD ACCEPTANCE AT THE 400 AREA FUEL STORAGE FACILITY (FSF).				

Solid Waste Information and Tracking System

Container Listing Report

for Package ID: 23432-2

Source Facility:

Location Facility:

Shipment #:

SWIR310

05/27/2014 10:25

Page 2 of 4

Hazardous Package Detail

Container Status: Full

Flashpoint: n/A

pH Value: >12.5

Subpart CC Flag: NA

DW Numbers: D001 D002 D003

RCRA Reporting

ADWR Stream Description: Sodium Metal -

Designation Code: DW

Source Code: G19 Other one-time or intermittent process

Comment: Decommissioning and Deactivation

Form Code: W319 Other inorganic solids, specify in comments

Comment: Sodium Wetted Piping

Origin Code:

Residual Mgmt Method:

Comment:

Management Method:

Comment:

Certification Group:

Reportable CERCLA?:

Pre-2007 Reporting

Waste Stream:

Offsite TSD Waste Stream:

RCRA Designated Date:

PCB Package Detail:

PCB Type:

PCB Source Concentration (PPM):

PCB Subtype:

PCB Waste Weight (kg):

PCB Contents:

Removed from Service:

## Solid Waste Information and Tracking System

SWIR310

## Container Listing Report

05/27/2014 10:25

for Package ID: 23432-2

Page 3 of 4

Source Facility:

Location Facility:

Shipment #:

Radioactive Package Detail

Waste Category: WC3	snm Waste?:	Thermal Power (w/cu.m.): 2.16228E-04
Combustible Flag:	Shielding:	Neutron Dose Rate (mrem/hr):
Exceeds ISB Limit: N	Handling:	Contact Dose Rate (mrem/hr):
NRC Class: A	RSWIMS Container Cnt: 1	Tot Pe-Ci: .00000E+00
	Excluded from DE-Ci:	ICRP 71 DE-Ci: 9.78718E-05

VOC/Hydrogen Gas Diffusion Detail

H2 Diffusion Release Date:	VOC Hold?:	VOC Resample Date:
----------------------------	------------	--------------------

Current Location Information

Facility ID: 403	Tier Level:	Loc Beg Coordinates - N:
Trench / Unit:	Tier Position:	W:
Module:	GPS Data Flag:	Loc End Coordinates - N:
		W:

Isotope Information

<u>Isotope Number</u>	<u>Isotope Name</u>	<u>Isotope Activity (Ci)</u>
7	Cs-134	1.23000E-03
8	Cs-137	1.06000E+00
13	Co-60	9.12000E-04
56	Na-22	2.72000E-04

Solid Waste Information and Tracking System

SWIR310

Container Listing Report

05/27/2014 10:25

for Package ID: 23432-2

Page 4 of 4

Source Facility:

Location Facility:

Shipment #:

Waste Component Records

<u>Component ID</u>	<u>Component Text</u>	<u>PPM</u>	<u>Weight (kg)</u>	<u>Weight %</u>
7440-23-5	SODIUM		1193.6886	25.8
GCMETAL	METAL (NONHAZARDOUS)		3433.0114	74.2
			4626.7000	

**U.S. ENVIRONMENTAL PROTECTION AGENCY**  
**INSPECTION OF 400 AREA WMU, 440-PAD, AND MASF**  
**DOCUMENTS AND INFORMATION REQUEST**  
**MAY 21, 2014**

**INSPECTION REQUEST NUMBER 14**

**Copies of the Waste Inventory Sheets for the Containers Located at the 440-Pad SAA.**

# WASTE INVENTORY SHEET

Page 1 of 2

<b>1(a) WASTE TYPE</b> <input type="checkbox"/> Suspect <input checked="" type="checkbox"/> Hazardous <input type="checkbox"/> LLW <input type="checkbox"/> Mixed <input type="checkbox"/> Transuranic <input type="checkbox"/> Non-Reg. <input type="checkbox"/> ECM <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____	<b>1(b) PHYSICAL STATE</b> <input type="checkbox"/> Free liquid <input type="checkbox"/> Solid <input type="checkbox"/> Absorbed liquid <input type="checkbox"/> Liquid / Solid <input type="checkbox"/> Gas <input type="checkbox"/> Sludge <input type="checkbox"/> Used <input type="checkbox"/> Old / Expired <input type="checkbox"/> Spill Cleanup <input checked="" type="checkbox"/> aerosol cans <input type="checkbox"/> _____	<b>2) LINER</b> <input type="checkbox"/> 90 mil <input type="checkbox"/> 10 mil, nylon reinforced <input type="checkbox"/> 10 mil, plastic <input checked="" type="checkbox"/> n/a <input type="checkbox"/> _____ <input type="checkbox"/> _____ <b>3) CONTAINER CONDITION</b> <input type="checkbox"/> NEW <input type="checkbox"/> USED <input type="checkbox"/> _____	<b>4) CONTAINER DESCRIPTION(s)</b> <input type="checkbox"/> 5 Gallon <input type="checkbox"/> 8 Gallon <input type="checkbox"/> 15 Gallon <input type="checkbox"/> 30 Gallon <input type="checkbox"/> 55 Gallon <input type="checkbox"/> 85 Gallon <input type="checkbox"/> 5*4*3 <input type="checkbox"/> 8*4*4 <input type="checkbox"/> 6*3 Resin Tote <input type="checkbox"/> 4*8 GAC Canister <input checked="" type="checkbox"/> 6l Liter <input type="checkbox"/> UN1A1 (bung) <input checked="" type="checkbox"/> UN1A2 (open top) <input type="checkbox"/> Galvanized <input type="checkbox"/> Painted <input type="checkbox"/> Wood <input type="checkbox"/> Plastic <input type="checkbox"/> Metal <input type="checkbox"/> Fiberboard <input type="checkbox"/> Resin Coated <input type="checkbox"/> _____ <input type="checkbox"/> _____	<b>CONTAINER IDENTIFICATION</b> <b>5) PIN</b> <b>6) CIN / Barcode</b> 0027876 <b>7) Storage Location</b> 440 pad / FFTF <b>8) CACN</b> <b>9)</b> Dose Rate at Contact (mRem/hr) _____ Dose Rate at (@ 30 cm) (mRem/hr) _____ Dose Rate at 1 Meter (mRem/hr) _____
--	---	--	---	---

Item No. 1	<b>10) GENERAL WASTE DESCRIPTION</b>	<b>TOTE/CANISTER NO.</b>	<b>VESSEL NO.</b>
Package's Name Malley Date 5-29-14 MSDS(s)	13-Aerosol cans/CRC zinc-it Instant cold galv. 13 oz. 3-Aerosol cans/CRC Instant cold galv.zinc rich. 13 oz. 1-Aerosol cans/sprayon zinc rich cold galv. 14 oz. 1-Aerosol cans/ZRC galvilite galv. comp. 12 oz.		Package Weight 6.4 (check one) <input type="radio"/> KG <input checked="" type="radio"/> LB

a. Paper	%	e. Metal	90	%	i. Soil	%	j. liquid	5	%	n. Generating Facility
b. Plastic	5	%	f. Wood	%			k.	%	o. Dose Rate at Contact	
c. Rubber	%	g. Glass	%		l.	%	p. Absorbent (explain in comments)	%		
d. Cloth	%	h. Leather	%		m. Container Current Net Weight	lbs				

Item No.	<b>10) GENERAL WASTE DESCRIPTION</b>	<b>Package Weight</b>						
Package's Name Date MSDS(s)		(check one) <input type="radio"/> KG <input type="radio"/> LB						
a. Paper	%	e. Metal	%	i. Soil	%	j.	%	n. Generating Facility
b. Plastic	%	f. Wood	%			k.	%	o. Dose Rate at Contact
c. Rubber	%	g. Glass	%			l.	%	p. Absorbent (explain in comments)
d. Cloth	%	h. Leather	%		m. Container Current Net Weight	lbs		

<b>11) COMMENTS</b>	<b>12) Container Status</b>	<b>13) Packaging</b>	<b>14) Final Net Weight</b>
	<input type="radio"/> FULL	Weight	_____ <input type="radio"/> KG <input type="radio"/> LB
	<input type="radio"/> PARTIALLY FULL	Wood Blocking _____	<b>15) TARE</b> _____ <input type="radio"/> KG <input type="radio"/> LB
	<input type="radio"/> EMPTY	Void Filler _____	<b>16) Packaging</b> _____ <input type="radio"/> KG <input type="radio"/> LB
	<input type="radio"/> _____	(type in comments) Absorbent _____ (identify in comments) Other: _____ (identify in comments)	<b>17) Gross Weight</b> _____ <input type="radio"/> KG <input type="radio"/> LB
			<b>18) Waste Water</b> <input type="radio"/> Non-Waste Water <input type="radio"/>
			<b>19) Debris</b> <input type="radio"/> Non-Debris <input type="radio"/>

# WASTE INVENTORY SHEET - Continuation Sheet

Page 2 of 2

<b>5) PIN</b>		<b>6) CIN / Barcode</b> 0027876					
Item No.	<b>10) GENERAL WASTE DESCRIPTION</b>						
Packager's Name							Package Weight _____
Date							(check one)
MSDS(s)							<input type="radio"/> KG <input type="radio"/> LB
	a. Paper %	e. Metal %	i. Soil %	j. %	n. Generating Facility		
	b. Plastic %	f. Wood %		k. %	o. Dose Rate at Contact		
	c. Rubber %	g. Glass %		l. %	p. Absorbent (explain in comments) %		
	d. Cloth %	h. Leather %		m. Container Current Net Weight lbs			
Item No.	<b>10) GENERAL WASTE DESCRIPTION</b>						
Packager's Name							Package Weight _____
Date							(check one)
MSDS(s)							<input type="radio"/> KG <input type="radio"/> LB
	a. Paper %	e. Metal %	i. Soil %	j. %	n. Generating Facility		
	b. Plastic %	f. Wood %		k. %	o. Dose Rate at Contact		
	c. Rubber %	g. Glass %		l. %	p. Absorbent (explain in comments) %		
	d. Cloth %	h. Leather %		m. Container Current Net Weight lbs			
Item No.	<b>10) GENERAL WASTE DESCRIPTION</b>						
Packager's Name							Package Weight _____
Date							(check one)
MSDS(s)							<input type="radio"/> KG <input type="radio"/> LB
	a. Paper %	e. Metal %	i. Soil %	j. %	n. Generating Facility		
	b. Plastic %	f. Wood %		k. %	o. Dose Rate at Contact		
	c. Rubber %	g. Glass %		l. %	p. Absorbent (explain in comments) %		
	d. Cloth %	h. Leather %		m. Container Current Net Weight lbs			
Item No.	<b>10) GENERAL WASTE DESCRIPTION</b>						
Packager's Name							Package Weight _____
Date							(check one)
MSDS(s)							<input type="radio"/> KG <input type="radio"/> LB
	a. Paper %	e. Metal %	i. Soil %	j. %	n. Generating Facility		
	b. Plastic %	f. Wood %		k. %	o. Dose Rate at Contact		
	c. Rubber %	g. Glass %		l. %	p. Absorbent (explain in comments) %		
	d. Cloth %	h. Leather %		m. Container Current Net Weight lbs			

# WASTE INVENTORY SHEET

Page 1 of 2

<b>1(a) WASTE TYPE</b> <input type="checkbox"/> Suspect <input type="checkbox"/> Hazardous <input type="checkbox"/> LLW <input checked="" type="checkbox"/> Mixed <input type="checkbox"/> Transuranic <input type="checkbox"/> Non-Reg. <input type="checkbox"/> ECM <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____	<b>1(b) PHYSICAL STATE</b> <input type="checkbox"/> Free liquid <input checked="" type="checkbox"/> Solid <input type="checkbox"/> Absorbed liquid <input type="checkbox"/> Liquid / Solid <input type="checkbox"/> Gas <input type="checkbox"/> Sludge <input type="checkbox"/> Used <input type="checkbox"/> Old / Expired <input type="checkbox"/> Spill Cleanup <input type="checkbox"/> _____ <input type="checkbox"/> _____	<b>2) LINER</b> <input type="checkbox"/> 90 mil <input type="checkbox"/> 10 mil, nylon reinforced <input type="checkbox"/> 10 mil, plastic <input type="checkbox"/> n/a <input type="checkbox"/> _____ <input type="checkbox"/> _____ <b>3) CONTAINER CONDITION</b> <input checked="" type="checkbox"/> NEW <input type="checkbox"/> USED <input type="checkbox"/> _____	<b>4) CONTAINER DESCRIPTION(s)</b> <input type="checkbox"/> 5 Gallon <input type="checkbox"/> 8 Gallon <input type="checkbox"/> 15 Gallon <input type="checkbox"/> 30 Gallon <input checked="" type="checkbox"/> 55 Gallon <input type="checkbox"/> 85 Gallon <input type="checkbox"/> 5*4*3 <input type="checkbox"/> 8*4*4 <input type="checkbox"/> 6*3 Resin Tote <input type="checkbox"/> 4*8 GAC Canister <input type="checkbox"/> _____ <input type="checkbox"/> UN1A1 (bung) <input checked="" type="checkbox"/> UN1A2 (open top) <input type="checkbox"/> Galvanized <input type="checkbox"/> Painted <input type="checkbox"/> Wood <input type="checkbox"/> Plastic <input type="checkbox"/> Metal <input type="checkbox"/> Fiberboard <input type="checkbox"/> Resin Coated <input type="checkbox"/> _____ <input type="checkbox"/> _____	<b>CONTAINER IDENTIFICATION</b> <b>5) PIN</b> CP-13-02-F <b>6) CIN / Barcode</b> 0026112 <b>7) Storage Location</b> 440 pad / FFTF <b>8) CACN</b> <b>9)</b> Dose Rate at Contact (mRem/hr) _____ Dose Rate at (@ 30 cm) (mRem/hr) _____ Dose Rate at 1 Meter (mRem/hr) _____
--	--	--	--	--

Item No. 1	<b>10) GENERAL WASTE DESCRIPTION</b>				TOTE/CANISTER NO.	VESSEL NO.
Packager's Name REID / RAMOS	1-Tritium sign (BROKEN) Forever-lite inc./serial#286,268/model#SLXTU1/Tritium curies 11.21 in plastic bags (2) absorbent pads tyveks, rubber gloves,tape.					Package Weight 6.8
Date 2-6-13						(check one)
MSDS(s)						<input type="radio"/> KG <input checked="" type="radio"/> LB
	a. Paper %	e. Metal 1 %	i. Soil %	j. %	n. Generating Facility 4713	
	b. Plastic 80 %	f. Wood %		k. %	o. Dose Rate at Contact <.5 mr	
	c. Rubber 9 %	g. Glass 10 %		l. %	p. Absorbent (explain in comments) %	
	d. Cloth %	h. Leather %		m. Container Current Net Weight 6.8 lbs		

Item No.	<b>10) GENERAL WASTE DESCRIPTION</b>					Package Weight
Packager's Name						(check one)
Date						<input type="radio"/> KG <input type="radio"/> LB
MSDS(s)						
	a. Paper %	e. Metal %	i. Soil %	j. %	n. Generating Facility	
	b. Plastic %	f. Wood %		k. %	o. Dose Rate at Contact	
	c. Rubber %	g. Glass %		l. %	p. Absorbent (explain in comments) %	
	d. Cloth %	h. Leather %		m. Container Current Net Weight	lbs	

11) COMMENTS	12) Container Status	13) Packaging Weight	14) Final Net Weight
	<input type="radio"/> FULL	Wood Blocking	_____ <input type="radio"/> KG <input type="radio"/> LB
	<input type="radio"/> PARTIALLY FULL	Void Filler (type in comments)	15) TARE _____ <input type="radio"/> KG <input type="radio"/> LB
	<input type="radio"/> EMPTY	Absorbent (identify in comments)	16) Packaging (including liner) _____ <input type="radio"/> KG <input type="radio"/> LB
	<input type="radio"/> _____	Other: (identify in comments)	17) Gross Weight _____ <input type="radio"/> KG <input type="radio"/> LB
			18) Waste Water <input type="radio"/> Non-Waste Water <input type="radio"/>
			19) Debris <input type="radio"/> Non-Debris <input type="radio"/>



# WASTE INVENTORY SHEET - Continuation Sheet

Page 2 of 2

5) PIN CP-13-02-F

6) CIN / Barcode 0026112

Item No.	10) GENERAL WASTE DESCRIPTION									
Package's Name										
Date										
MSDS(s)										
	a. Paper	%	e. Metal	%	i. Soil	%	j.	%	n. Generating Facility	
	b. Plastic	%	f. Wood	%			k.	%	o. Dose Rate at Contact	
	c. Rubber	%	g. Glass	%			l.	%	p. Absorbent (explain in comments)	%
	d. Cloth	%	h. Leather	%			m. Container Current Net Weight	lbs		
Item No.	10) GENERAL WASTE DESCRIPTION									
Package's Name										
Date										
MSDS(s)										
	a. Paper	%	e. Metal	%	i. Soil	%	j.	%	n. Generating Facility	
	b. Plastic	%	f. Wood	%			k.	%	o. Dose Rate at Contact	
	c. Rubber	%	g. Glass	%			l.	%	p. Absorbent (explain in comments)	%
	d. Cloth	%	h. Leather	%			m. Container Current Net Weight	lbs		
Item No.	10) GENERAL WASTE DESCRIPTION									
Package's Name										
Date										
MSDS(s)										
	a. Paper	%	e. Metal	%	i. Soil	%	j.	%	n. Generating Facility	
	b. Plastic	%	f. Wood	%			k.	%	o. Dose Rate at Contact	
	c. Rubber	%	g. Glass	%			l.	%	p. Absorbent (explain in comments)	%
	d. Cloth	%	h. Leather	%			m. Container Current Net Weight	lbs		
Item No.	10) GENERAL WASTE DESCRIPTION									
Package's Name										
Date										
MSDS(s)										
	a. Paper	%	e. Metal	%	i. Soil	%	j.	%	n. Generating Facility	
	b. Plastic	%	f. Wood	%			k.	%	o. Dose Rate at Contact	
	c. Rubber	%	g. Glass	%			l.	%	p. Absorbent (explain in comments)	%
	d. Cloth	%	h. Leather	%			m. Container Current Net Weight	lbs		

**U.S. ENVIRONMENTAL PROTECTION AGENCY**  
**INSPECTION OF 400 AREA WMU, 440-PAD, AND MASF**  
**DOCUMENTS AND INFORMATION REQUEST**  
**MAY 21, 2014**

**INSPECTION REQUEST NUMBER 15**

**Copy of the Training Plan and Completion Dates for the MASF Operations Manager.**

# Training Plan by HID

Data as of: 05/28/2014

Page 1 of 5

Name: Young, Michael A

Hanford ID: 0015565

Contractor: CHPRC

Job Title: 3-ENG/FWS/PLNR - MASF

Course	Course Title	Recert Freq	Req?	Date Taken	Date Needed	Crs Taken	Retrain Crs	Date Sched	Crs# Sched
---- AJHA Facility Support Admin Trng (1421) ----									
172709	AUTOMATED JOB HAZARD ANALYSIS FACILITY SUPPORT	0	Y	06/12/2013		172709			
---- ALL CHPRC Employee Training (1363) ----									
000001	HANFORD GENERAL EMPLOYEE TRAINING - CBT	12	Y	09/23/2013	09/23/2014	000001	000001		
000006	CHPRC - GENERAL EMPLOYEE TRAINING (CGET)	12	Y	09/23/2013	09/23/2014	000006	000006		
600008	ISMS/EMS/VPP OVERVIEW - CBT	0	Y	10/14/2009		600008			
600045	UNIVERSAL WASTE MANAGEMENT	0	Y	07/12/2010		600045			
---- All Engineering Disciplines (1377) ----									
022400	SITE ENGINEERING QUALIFICATION TRAINING	0	Y	01/12/2010		022400			
---- Basic Crane & Rigging (3814) ----									
040784	BASIC CRANE & RIGGING SAFETY	60	Y	12/21/2009	12/21/2014	044691	040786		
044691	CLASS 1 OVERHEAD CRANES, FLOOR OPERATED	60	Y	12/21/2009	12/21/2014	044691	044691		
---- cab operated E will not operate (5570) ----									
040784	BASIC CRANE & RIGGING SAFETY	60	Y	12/21/2009	12/21/2014	044691	040786		
043010	OVERHEAD CRANE INSPECTION (ELECTRICAL)	60	Y	04/14/2009	04/14/2014	043010	043010	06/11/2014	043010
---- cab operated M will not operate (5569) ----									
040784	BASIC CRANE & RIGGING SAFETY	60	Y	12/21/2009	12/21/2014	044691	040786		
042830	OVERHEAD CRANE INSPECTION MECHANICAL	60	Y	03/24/2009	03/24/2014	042830	042830		
---- CHPRC Management Assessments (1339) ----									
600007	CHPRC MANAGEMENT ASSESSMENT TUTORIAL	24	Y	01/16/2013	01/16/2015	600007	600007		
---- CHPRC Occurrence Report Writers (ORPS) (1318) ----									
170640	INTRODUCTION TO OCCURRENCE REPORTING	0	Y	06/02/2009		170640			
170642	OCCURRENCE REPORT WRITING	0	Y	11/10/2009		170642			
600081	CHPRC CAUSE EVALUATOR TRAINING	0	Y	03/23/2012		600081			
---- CHPRC Technical Authorities (1401) ----									
600614	CHPRC PPS & TA TRAINING - CBT	0	Y	01/09/2013		600614			
---- CHPRC Utility Vehicle Checklist (1509) ----									
290527	CHPRC UTILITY VEHICLE TRAINING	0	Y	10/19/2012		290527			
---- CHPRC Work Planner Qualification (1417) ----									
003121	HANFORD SITE LOCKOUT/TAGOUT TRAINING OVERVIEW -	0	Y	08/23/2007		003101			

## Training Plan by HID

Data as of: 05/28/2014

Page 2 of 5

**Name:** Young, Michael A

**Hanford ID:** 0015565

**Contractor:** CHPRC

**Job Title:** 3-ENG/FWS/PLNR - MASF

<u>Course</u>	<u>Course Title</u>	<u>Recert</u> <u>Freq</u>	<u>Req?</u>	<u>Date</u> <u>Taken</u>	<u>Date</u> <u>Needed</u>	<u>Crs</u> <u>Taken</u>	<u>Retrain</u> <u>Crs</u>	<u>Date</u> <u>Sched</u>	<u>Crs#</u> <u>Sched</u>
<b>---- CHPRC Work Planner Qualification (1417) ----</b>									
010108	WORK MANAGEMENT/JOB CONTROL SYSTEM OVERVIEW	0	Y	12/31/2004		010108			
02006G	WASTE MANAGEMENT AWARENESS	0	Y	10/21/1993		02006G			
170720	SUSPECT/COUNTERFEIT ITEMS	12	Y	09/10/2013	09/10/2014	170724	170724		
170723	CHPRC WORK PLANNING INITIAL QUALIFICATION CARD	0	Y	04/04/2007		170723			
172703	THE WEB-BASED AJHA TOOL	0	Y	02/13/2007		172703			
172705	EFFECTIVE WORK PLANNING	0	Y	08/16/2007		172705			
172706	USING THE FEEDBACK, POST-JOB/ALARA REVIEW DATABASE	0	Y	11/14/2012		172706			
180400	CHPRC WORK MANAGEMENT OVERVIEW	0	Y	05/04/2011		604240			
<b>---- CHPRC Work Planning Manager (1418) ----</b>									
100723	CHPRC WORK PLANNING MANAGER QUALIFICATION CARD	0	Y	06/08/2011		100723			
172706	USING THE FEEDBACK, POST-JOB/ALARA REVIEW DATABASE	0	Y	11/14/2012		172706			
180400	CHPRC WORK MANAGEMENT OVERVIEW	0	Y	05/04/2011		604240			
<b>---- CHPRC Work Release Authority Qualification (1419) ----</b>									
003055	LOCKOUT/TAGOUT CONTROLLING ORG ADMINISTRATOR	12	Y	05/29/2013	05/29/2014	310R55	003055		
003056	LOCKOUT/TAGOUT AUTHORIZED WORKER PRACTICAL EVAL	12	Y	05/29/2013	05/29/2014	310R56	003056		
00310I	HANFORD SITE LOCKOUT/TAGOUT FOR CONTROLLING	12	Y	05/29/2013	05/29/2014	00310R	00310R	05/27/2014	00310R
170727	CHPRC RELEASE AUTHORITY DESIGNATION CARD	0	Y	01/14/2010		170727			
<b>---- Confined Space (3812) ----</b>									
020134	HANFORD SITE CONFINED SPACE ENTRY	0	Y	08/29/2011		020134			
<b>---- D and D Plant Specifics JSO (3864) ----</b>									
076626	D&D PROJECT JOB SPECIFIC ORIENTATION	0	Y	06/25/2012		076626			
<b>---- Design Authority (1379) ----</b>									
005102	DESIGN AUTHORITY QUALIFICATION - CHPRC	0	Y	01/12/2010		005102			
<b>---- Designated as equip. custodian (5637) ----</b>									
042870	EQUIPMENT CUSTODIAN TRAINING	60	Y	05/01/2014	05/01/2019	042870	042870		
<b>---- Emergency Preparedness/BW-General Purpose (5725) ----</b>									
037505	BUILDING WARDEN INITIAL TRAINING FOR GENERAL	12	Y	02/10/2014	02/10/2015	037526	037526		
<b>---- Emergency Preparedness/PAA (5723) ----</b>									
038200	STAGING AREA MANAGER (SAM) PERSONNEL	12	Y	02/10/2014	02/10/2015	037526	038200		
<b>---- Field Work Supervisor - MASF (3809) ----</b>									



# Training Plan by HID

Data as of: 05/28/2014

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Name: Young, Michael A

Hanford ID: 0015565

Contractor: CHPRC

Job Title: 3-ENG/FWS/PLNR - MASF

<u>Course</u>	<u>Course Title</u>	<u>Recert</u> <u>Freq</u>	<u>Date</u> <u>Reg?</u>	<u>Date</u> <u>Taken</u>	<u>Date</u> <u>Needed</u>	<u>Crs</u> <u>Taken</u>	<u>Retrain</u> <u>Crs</u>	<u>Date</u> <u>Sched</u>	<u>Crs#</u> <u>Sched</u>
---- Field Work Supervisor - MASF (3809) ----									
010108	WORK MANAGEMENT/JOB CONTROL SYSTEM OVERVIEW	0	Y	12/31/2004		010108			
020147	FALL HAZARD RECOGNITION AND PREVENTION	0	Y	05/22/1996		020140			
020194	HEARING CONSERVATION - CBT	12	Y	05/20/2014	05/20/2015	020194	020194		
020440	FALL PROTECTION PFAS USERS	24	Y	02/19/2014	02/19/2016	020441	020441		
043820	BREAKER OPERATION ELECTRICAL SAFETY	36	Y	03/25/2013	03/25/2016	043820	043820		
044371	USERS SCAFFOLD SAFETY - CBT	0	Y	10/01/2003		044371			
044391	PORTABLE LADDER SAFETY - CBT	0	Y	07/02/2005		044391			
044480	ELECTRICAL SAFETY FOR NON-ELECTRICAL WORKERS	36	Y	05/21/2013	05/21/2016	043875	044480		
170173	CONDITION REPORTING AND RESOLUTION SYSTEM (CRRS) -	0	Y	11/09/2009		170173			
172703	THE WEB-BASED AJHA TOOL	0	Y	02/13/2007		172703			
180400	CHPRC WORK MANAGEMENT OVERVIEW	0	Y	05/04/2011		604240			
211186	MASF FWS INITIAL QUALIFICATION CHECKLIST	24	Y	04/04/2013	04/04/2015	211187	211187		
213007	MASF FEHC / ORIENTATION	12	Y	04/28/2014	04/28/2015	213007	213007		
604240	CHPRC FIELD WORK SUPERVISOR	0	Y	05/04/2011		604240			
---- Global Harmonization Systems Trng - CBT (GHS-1) ----									
600400	CHPRC GHS HAZARD COMMUNICATION	0	Y	01/16/2013		600400	600400		
---- Gov't Vehicle Drivers Awareness & Practical (1507) ----									
145000	DRIVER AWARENESS - PRACTICAL	0	Y	08/26/2011		301846			
301845	DRIVER AWARENESS - CBT	0	Y	06/29/2010		301845			
---- Haz Review for Subject Matter Experts & Tech Auth (1423) ----									
172703	THE WEB-BASED AJHA TOOL	0	Y	02/13/2007		172703			
172707	HAZARD REVIEW FOR SUBJECT MATTER EXPERTS AND	0	Y					06/16/2014	172707
---- LOTO CO Designating MGR - QC ----									
600606	CHPRC CONTROLLING ORGANIZATION LOCKOUT/TAGOUT	0	Y	01/24/2014		600606			
---- MASF - Qualified Electrical Worker (3815) ----									
043870	NFPA-70E STANDARDS FOR ELECTRICAL SAFETY	36	Y	05/21/2013	05/21/2016	043875	043875		
170500	BASIC MEDIC FIRST AID/CPR/AED TRAINING	24	Y	03/27/2013	03/27/2015	170501	170501		
801497	NEC CODE UPDATE 2014	0	Y	03/12/2014		801497			
---- MASF Personnel (5487) ----									
213007	MASF FEHC / ORIENTATION	12	Y	04/28/2014	04/28/2015	213007	213007		
---- MGR TRNG - Safe & Drug Free Workplace (1334) ----									
080820	SAFE AND DRUG-FREE WORKPLACE INITIAL - CBT	24	Y	04/02/2013	04/02/2015	080830	080830		

# Training Plan by HID

Data as of: 05/28/2014

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Name: Young, Michael A

Hanford ID: 0015565

Contractor: CHPRC

Job Title: 3-ENG/FWS/PLNR - MASF

<u>Course</u>	<u>Course Title</u>	<u>Recert</u> <u>Freq</u>	<u>Req?</u>	<u>Date</u> <u>Taken</u>	<u>Date</u> <u>Needed</u>	<u>Crs</u> <u>Taken</u>	<u>Retrain</u> <u>Crs</u>	<u>Date</u> <u>Sched</u>	<u>Crs#</u> <u>Sched</u>
---- OJT / OJE Instructor -Evaluator (1395) ----									
000396	ON-THE-JOB TRAINER FUNDAMENTALS	0	Y	09/04/1996		071957			
000397	ON-THE-JOB EVALUATOR FUNDAMENTALS	0	Y	09/04/1996		071957			
---- OPTIONAL - CHPRC Building Administrator Trng (1366) ----									
038300	BUILDING ADMINISTRATOR	12	Y	07/23/2013	07/23/2014	038301	038301		
---- Optional training - 802114 NFPA 101 Life Safety Code ----									
802114	NFPA 101 - LIFE SAFETY CODE	0	Y	10/12/2011		802114			
---- Principals for Conduct of Operations (1345) ----									
001011	VALUE OF OPERATIONAL EXCELLENCE	0	Y	08/19/1993		001000			
---- Rad Worker II (3822) ----									
020001	RADIOLOGICAL WORKER II INITIAL TRAINING	24	Y	03/21/2013	03/21/2015	020003	020003		
---- Responsible Manager - Issues Management (1305) ----									
600082	CHPRC RESPONSIBLE MANAGER TRAINING - ISSUES	0	Y	05/18/2011		600082			
---- Responsible Manager #600029 (1349) ----									
600029	CHPRC RESPONSIBLE MANAGER OVERVIEW TRAINING	0	Y	05/04/2011		600029			
---- Scaffold Safety Inspection (5685) ----									
044372	SCAFFOLD SAFETY FOR INSPECTORS	0	Y	09/27/2003		044370			
---- Work Management - D&D Project Specific RM Qual Card (1429) ----									
600090	RESPONSIBLE MANAGER QUALIFICATION D&D/100K	0	Y	06/14/2011		600090			
---- Work Management - Responsible Manager Qual (1428) ----									
172703	THE WEB-BASED AJHA TOOL	0	Y	02/13/2007		172703			
180400	CHPRC WORK MANAGEMENT OVERVIEW	0	Y	05/04/2011		604240			
600024	CHPRC RESPONSIBLE MANAGER - WORK PLANNING	0	Y	06/08/2011		600024			
600029	CHPRC RESPONSIBLE MANAGER OVERVIEW TRAINING	0	Y	05/04/2011		600029			
604240	CHPRC FIELD WORK SUPERVISOR	0	Y	05/04/2011		604240			

## Respiratory Medical Schedule Dates

<u>Last Exam Date</u>	<u>Date Scheduled</u>	<u>Time</u>	<u>Location</u>	<u>Type</u>	<u>Status</u>	<u>Inactive Date</u>
10/27/2009				RESP	EXPIRED	10/31/2010

## Dosimetry Schedule Dates

<u>Exam Type and Description</u>	<u>Exam Date</u>	<u>Exam Time</u>	<u>Last Exam</u>
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**U.S. ENVIRONMENTAL PROTECTION AGENCY**  
**INSPECTION OF 400 AREA WMU, 440-PAD, AND MASF**  
**DOCUMENTS AND INFORMATION REQUEST**  
**MAY 21, 2014**

**INSPECTION REQUEST NUMBER 16**

Copy of letter from U.S. Department of Energy (DOE) to the Washington State Department of Ecology (Ecology), Subject: "Class 1 Modifications to the Hanford Facility Resources Conservation and Recovery Act Permit (Permit), Quarter Ending December 31, 2013," dated January 10, 2014.

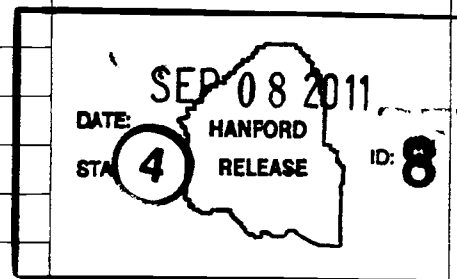
*Note: The first section of this submitted HF RCRA Permit Class 1 Modification Package is the 400 Area WMU.*



## DOCUMENT RELEASE FORM

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(b) Reviewer (Optional, Print/Sign): J. A. McCluskey		Date: 8/30/11	
(c) Responsible Manager (Print/Sign): J. R. Prilucik		Date: 8/31/11	
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# FINAL REPORT FOR TANK 241-AW-106 GRAB SAMPLES COLLECTED IN SUPPORT OF EVAPORATOR CAMPAIGNS FOR FISCAL YEAR 2009

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Richland, WA 99352

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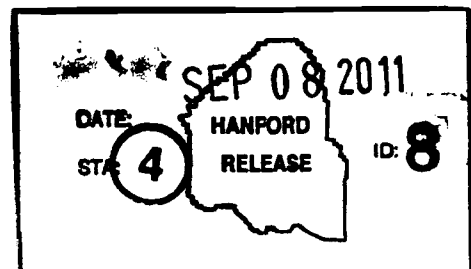
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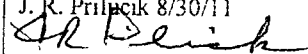
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# FINAL REPORT FOR TANK 241-AW-106 LIQUID GRAB SAMPLES IN SUPPORT OF EVAPORATOR CAMPAIGNS FOR FISCAL YEAR 2009

**Carolina S. Menjivar**

Advanced Technologies and Laboratories International, Inc.

**Date Published**

August 30, 2011

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A handwritten signature in black ink, appearing to read "C. S. Menjivar".

08-30-2011

C. S. Menjivar; ATL Project Coordinator

A handwritten signature in black ink, appearing to read "J. A. McCluskey".

8-30-2011

J. A. McCluskey; Quality Assurance Reviewer

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## 222-S LABORATORY

### REISSUED FINAL REPORT FOR TANK 241-AW-106 LIQUID GRAB SAMPLES IN SUPPORT OF EVAPORATOR CAMPAIGNS FOR FISCAL YEAR 2009

#### 1. INTRODUCTION

**This report has been reissued in order to add missing qualifier flags to the radchem results ( gross alpha and  $^{237}\text{Np}$ ) included in the data the summary report (see Attachment 1). In addition, the raw data included in Attachment 9 has been updated. These changes are in accordance with a Characterization Data Deficiency Form (DDF) received from the customer (see Attachment 6).**

This data package presents the results for liquid grab samples taken from tank 241-AW-106 (AW-106) on March 4 and 9, 2009. The samples were analyzed in accordance with RPP-PLAN-39120, *Tank 241-AW-106 Grab Sampling and Analysis Plan in Support of Evaporator Campaigns for Fiscal Year 2009* (TSAP); ATL-MP-1011, *ATL Quality Assurance Project Plan for 222-S Laboratory*; and SW-846, *Test Methods for Evaluating Solid Waste: Physical/Chemical Methods*.

All known deviations from the requirements in the TSAP are documented in this narrative. The Data Summary Report is presented in Attachment 1. The Sample Breakdown Diagrams are presented in Attachment 2. These diagrams show the relationships between the parent field samples and the laboratory sample identification numbers. Opportunistic Analyte Results are included in Attachment 3. Attachment 4 contains the surrogate recoveries for the volatile organic compound (VOC), semivolatile organic compound (SVOC), and polychlorinated biphenyls (PCB) analyses. Tentatively identified compounds from the VOC and SVOC analyses are included in Attachment 5. Attachment 6 contains correspondence received during the project. The photographs of the samples taken immediately after receipt are included in Attachment 7. Copies of the Chain of Custody (COC) and Generator Knowledge Information forms are included as Attachment 8. Copies of the raw data for each analysis are included in Attachment 9.

Details for sample analysis times and dates relative to holding times are given in Sections 4.1 through 4.3. All analyses were completed within 30 days.

As noted in Table 1, sample 6AW-08-04A was broken while loading it into the hot-cells. The tank coordinator was notified and on discussion, it was decided that a portion sample 6AW-08-04B would be used for the volatile organic analysis (VOA) test, and a characterization change notice was issued (09-CCN-04) to this effect. It is estimated that sample 6AW-08-04B was open for less than 5 minutes prior to subsampling for VOA. A second characterization change notice was issued (09-CCN-07) to add 2-butoxyethanol to the SVOA required analyte list and  $^{237}\text{Np}$  to the ICP-MS analysis.

#### 2. SAMPLE RECEIPT AND BREAKDOWN

Five grab samples and two field blanks were taken from AW-106 Riser 14 on March 4, 2009. Two grab samples (6AW-08-04A and -04B) were taken from AW-106 Riser 19 on

March 9, 2009. A trip blank was also created and delivered to the laboratory. The samples were received at the 222-S Laboratory on March 4, 5 and 9, 2009.

The data on the COCs were verified at sample receipt, and all samples except 6AW-08-01TB and 6AW-08-01FB1 were loaded into the 11A hot cell. These two samples were removed from the shipping containers outside of the hot cell and transferred into slip-lid cans for transporting to the lab. Samples were observed for appearance and determination of volume percent settled solids, and then photographs were taken of the samples that were handled in the hot cell.

### 3. SAMPLE APPEARANCE INFORMATION

The sample receipt and appearance information is included in Table 1. Sample descriptions from the COC forms may differ slightly. Since all samples except 6AW-08-01 were received in amber bottles, the color observation was made on subsampling. The samples were generally described as clear yellow liquids. Sample 6AW-08-04A was broken when it was being removed from the sample carrier; therefore the weight and volume could not be measured; the color observation was made on the material contained in the plastic bag.

**Table 1. Sample Receipt.**

<b>Sample Identification</b>	<b>Date Sampled</b>	<b>Date Received</b>	<b>Volume Percent Settled Solids (%)</b>	<b>Liquid Weight (g)</b>	<b>Sample Description</b>
6AW-08-01TB	3/4/09	3/5/09	None	N/A	250 mL clear colorless liquid; no solids; no organic layer.
6AW-08-01FB1	3/4/09	3/5/09	None	N/A	250 mL clear colorless liquid; no solids; no organic layer.
6AW-08-01FB2	3/4/09	3/5/09	None	242	250 mL clear colorless liquid; no solids; no organic layer.
6AW-08-01	3/4/09	3/4/09	None	306	250 mL clear yellow liquid; no solids; no organic layer.
6AW-08-02A	3/4/09	3/5/09	None	302	250 mL clear yellow liquid; no solids; no organic layer.
6AW-08-02B	3/4/09	3/5/09	None	302	250 mL clear yellow liquid; no solids; no organic layer.
6AW-08-03A	3/4/09	3/5/09	None	301	250 mL clear yellow liquid; no solids; no organic layer.
6AW-08-03B	3/4/09	3/4/09	None	302	250 mL clear yellow liquid; no solids; no organic layer.
6AW-08-04A	3/9/09	3/9/09	None	N/A	Clear yellow liquid; no solids; no organic layer. Sample jar broken in hot-cell; tests transferred to 6AW-08-04B.
6AW-08-04B	3/9/09	3/9/09	None	304	250 mL clear yellow liquid; no solids; no organic layer.

N/A – Measurement not obtained because sample was handled outside the hot cell.

#### 4. ANALYTICAL RESULTS SUMMARY

The Data Summary Report (Attachment 1) presents the final analytical results for those analytes requested in the TSAP. Measured analytes that were not specifically requested in Table 4-1 in the TSAP are reported in Attachment 3. There were no customer-defined quality control (QC) parameters for these analytes; the results were not verified and are not discussed in this narrative. These nonrequested results are considered “opportunistic” according to ATL-MP-1011. For VOC and SVOC, compounds that were detected but were not in the calibration, are considered tentatively identified compounds and are reported in Attachment 5.

Field blank 6AW-08-01FB1 was removed from the shipping container outside of the hot cell and all subsample aliquots were removed in a fume hood. Field blank 6AW-08-01FB2 was loaded into the 11A hot cell and subsampled in the same manner as the tank samples. Chloride, silicon, sodium, total organic carbon (TOC), gross beta activity,  $^{79}\text{Se}$ ,  $^{90}\text{Sr}$ ,  $^{235}\text{U}$ , and  $^{237}\text{Np}$  were detected in both field blanks at trace levels. Additionally, calcium and strontium were detected in 6AW-08-01FB1, and lead, nitrate,  $^{236}\text{U}$  and  $^{238}\text{U}$  were detected in 6AW-08-01FB2 at trace levels. With the exception of TOC, samples were analyzed at dilution factors 1000 times greater than the blanks. All detected analytes were less than 20% of the lowest sample result.

The TSAP requested that the laboratory use the least dilution to obtain the lowest practical detection limit. Minimum detection limits were also requested. However, the TSAP indicated that these required minimum detection limits (RDL) were not expected to be met if the sample results were greater than the estimated quantitation limit (EQL). All analytes either met the RDL or were reported above the EQL except for two of the seven Aroclors. For the PCB analysis, the sample size was chosen based on the specific gravity (SpG). The detection limit for all Aroclors, except Aroclor-1016 and Aroclor-1260 met the RDL.

The “Det Limit” column in Attachments 1 and 3 contains the method detection limit (MDL) for nonradionuclide analyses or the minimum detectable activity (MDA) for radionuclides.

In Attachments 1 and 3, the column labeled “A#” indicates the aliquot class or the method used for sample preparation before analysis. The “O” indicates that samples were extracted for organic analysis. The “S” indicates that samples were distilled prior to analysis for ammonium ion. Samples without a letter identifier were analyzed directly with no separate preparation analysis or with sample preparation performed as a part of the procedure steps.

The flags used to qualify the data are defined as the following. These are used in the “Qual Flags” column in Attachments 1 and 3 but can also be found in Attachment 5 and the raw data.

- a. “B” is used to indicate that the analyte was detected in the method blank and in the sample, and the result for the blank was greater than 5% of the reported sample result.
- b. “J” indicates that the reported result should be considered an estimate because of increased uncertainty near the detection limit. The “J” flag is applied to sample concentrations that are greater than the MDL but less than the EQL. For radionuclides, the “J” flag is applied to detected isotopes that have a counting uncertainty (Count Err %) greater than 30%. It is also applied to samples with pH reported >13.5.

- c. "Q" indicates that the result is qualitative only.
- d. "U" indicates that the reported result is less than the calculated MDL or MDA.
- e. "b" indicates that the associated matrix spike/matrix spike duplicate (MS/MSD) were outside the range specified in the TSAP
- f. "e" indicates that the serial dilution for that sample was outside the range specified in the method.

Manual calculations using rounded results from the Data Summary Report or result calculation forms may differ slightly from the actual results derived from the raw data.

#### 4.1 INORGANIC ANALYSES

##### 4.1.1 Specific Gravity

The SpG analysis was performed on a direct subsample of the surface sample and each "B" sample. The analysis was performed using a 5-mL sample size to improve the precision of the measurements. The LCS recovery and the relative percent difference (RPD) between sample and duplicate results met the criterion in the TSAP.

##### 4.1.2 pH

The pH analysis was performed on a direct subsample of the surface sample, each "B" sample, and both field blanks. The LCS and duplicate pH measurements met the criteria listed in the TSAP.

The stated SW-846 holding time for pH analysis is "immediately." The time duration between sampling and measurement of the pH for each sample is shown in Table 2.

**Table 2. Holding Times for pH.**

Customer ID	Sample Number	Sampling Date	Receipt Date	Analysis Date	Elapsed Time (hours)
6AW-08-01FB1	S09T001751	3/4/09 10:22	3/5/09	3/5/2009 17:30	31
6AW-08-01FB2	S09T001762	3/4/09 10:27	3/5/09	3/5/2009 17:30	31
6AW-08-01	S09T001772	3/4/09 10:36	3/4/09	3/4/2009 20:30	10
6AW-08-02B	S09T001783	3/4/09 10:50	3/5/09	3/5/2009 17:30	31
6AW-08-03B	S09T001795	3/4/09 11:00	3/4/09	3/4/2009 20:30	9.5
6AW-08-04B	S09T001807	3/9/09 10:41	3/9/09	3/9/2009 18:00	7.3

#### 4.1.3 Hydroxide

The OH<sup>-</sup> analysis was performed on a direct subsample of the surface sample and each “B” sample. The LCS recovery, spike recovery, and RPD met the criteria in the TSAP. No free OH<sup>-</sup> was detected in the method blank. The RDL was not met, but the reported results for the tank samples were above the EQL.

#### 4.1.4 Differential Scanning Calorimetry

The differential scanning calorimetry (DSC) analysis was performed on a direct subsample of each “B” sample. The LCS met the recovery criteria specified in the TSAP. No exotherms were exhibited in the samples, so calculation of an RPD was not applicable. The results were also reported on a dry weight basis, using the thermogravimetric analysis (TGA) results, as required in the TSAP.

#### 4.1.5 Percent Water

The percent water was determined on a direct subsample of the surface sample and each “B” sample using TGA. The LCS recoveries and RPD met the criteria listed in the TSAP.

#### 4.1.6 Mercury

Analysis for Hg was performed on a direct subsample of the surface sample, each “B” sample and each field blank. The LCS recovery and RPD met the criteria listed in the TSAP, as did the post-digestion spike. However, the pre-digestion spike had a recovery of only 33.8%. A reanalysis of the samples produced similar results (56.4% pre-digestion spike recovery), suggesting a matrix effect. Trace amounts of mercury were detected in all the tank samples in the reanalysis. The original analysis was performed within the 28-day holding time, the reanalysis was not.

#### 4.1.7 Ammonium

Analysis for NH<sub>4</sub><sup>+</sup> was performed on a distilled subsample of each field blank and each “B” sample. The LCS and MS recoveries and RPD met the criteria listed in the TSAP. A low level of NH<sub>4</sub><sup>+</sup> was detected in the method blank.

#### 4.1.8 Ion Chromatography

Ion chromatography (IC) analysis was performed on a direct subsample of the surface sample, each “B” sample, and both field blanks. Table 4-1 in the TSAP listed required analytes. Results from all other anions and organic acids are presented in Attachment 3.

The samples were analyzed using the IC method that separates the low molecular weight organic acids from the fluoride. The holding time for nitrate, nitrite and phosphate is 48 hours. The holding time for chloride is 28 days. Due to delays between sampling and delivery, the only sample that met all of the holding times was 6AW-08-04B. The actual durations from sampling to analysis are indicated in Table 3.

**Table 3. Nitrate and Nitrite Holding Times.**

<b>Customer ID</b>	<b>Sample Number</b>	<b>Sampling Date</b>	<b>Receipt Date</b>	<b>Analysis Date</b>	<b>Elapsed Time (hours)</b>
6AW-08-01FB1	S09T001751	3/4/09 10:22	3/5/09	3/6/2009 19:12	57
6AW-08-01FB2	S09T001762	3/4/09 10:27	3/5/09	3/6/2009 19:44	57
6AW-08-01	S09T001772	3/4/09 10:36	3/4/09	3/6/2009 21:52	59
6AW-08-02B	S09T001783	3/4/09 10:50	3/5/09	3/6/2009 20:16	57
6AW-08-03B	S09T001795	3/4/09 11:00	3/4/09	3/9/2009 17:23	126
6AW-08-04B	S09T001807	3/9/09 10:41	3/9/09	3/10/2009 00:54	14.2

The LCS recoveries, spike recoveries, and RPDs met the criteria listed in the TSAP.

#### **4.1.9 Inductively Coupled Plasma-Atomic Emission Spectroscopy**

The inductively coupled plasma-atomic emission spectroscopy analysis was performed on a direct subsample of the surface sample, each “B” sample, and both field blanks. Table 4-1 in the TSAP listed required analytes. All other analyte results obtained from this method are presented in Attachment 3.

A duplicate and spike were analyzed on the surface sample. The LCS and MS recoveries and RPDs all met the requirements in the TSAP. Iron and nickel were detected in the method blank, except for sample S09T001782 (6AW-08-02B), which had no reportable nickel above the detection limit ( $<8.0 \mu\text{g/mL}$ ). The percent difference for sodium serial dilution (10.8%) slightly exceeded the control limit of 10%; no reanalysis was performed.

All sample analyses were completed within the required 180-day hold time.

#### **4.1.10 Inductively Coupled Plasma-Mass Spectrometry**

The inductively coupled plasma-mass spectrometry (ICP-MS) analysis for  $^{99}\text{Tc}$  and isotopic uranium was performed on a direct subsample of each “B” sample and both field blanks. Table 4-1 in the TSAP listed required analytes. All other analyte results obtained from this method are presented in Attachment 3. A duplicate and MS were required for the isotopic uranium analysis; an MS and MSD were required for the  $^{99}\text{Tc}$  analysis. Table 4 summarizes the MS/MSD recoveries and the spike RPDs.

**Table 4. Matrix Spike/ Duplicate Summary for  $^{99}\text{Tc}$ .**

Laboratory Identification	Analyte	MS Recovery (%)	MSD Recovery (%)	RPD (%)
S09T001784	$^{99}\text{Tc}$	104	101	3.16

The presence of  $^{99}\text{Ru}$  and/or natural  $^{64}\text{Zn}^{35}\text{Cl}$  in these samples would cause a high bias in the  $^{99}\text{Tc}$  results measured by ICP-MS. Interference from zinc chloride is estimated to be negligible based on Zn results. Since  $^{99}\text{Ru}$  is a fission product and is known to be present in some tank waste, these results may be biased high. The dilutions required for the samples were large enough such that any chloride in the samples would not interfere with the  $^{99}\text{Tc}$  results.

With the exception of  $^{238}\text{U}$ , the results for the field blank samples, which were run at a tenfold dilution, were less than the detection limit.

Direct calibration, where a standard containing the isotope and element of interest is used to calibrate the response of the isotope, is the most accurate type of calibration. Standard material is not available for all the isotopes of interest. Those isotopes without available standards are calibrated using the instrument's mass-response curve and the intensity/concentration relationship for the available isotope standards. While the isotope results calibrated in this manner are designated "semi-quantitative" in the procedure, the differences in instrument response along the curve are generally small enough across the actinide mass range such that the results generated might be expected to be within similar uncertainties associated with quantitative results (i.e., those obtained directly against an isotope-specific standard).

A similar approach is used to evaluate the recoveries of calibration checks, standards, and spikes. Just as all of the elemental isotopes of interest are not available for calibration, they are also not available for the various QC samples. Because the chemical properties of an element are the same for all of its isotopes, one elemental isotope can be used as a measure for other isotopes of interest. For example, by measuring the recovery of  $^{238}\text{U}$  in the various QC samples, the accuracy of the other uranium isotopes also can be evaluated. Table 5 lists the isotopes used for standards and spike samples for ICP-MS analyses.

**Table 5. Inductively Coupled Plasma-Mass Spectroscopy Standards and Spikes.**

Standard Type	Analytes Analyzed
Initial calibration verification (equivalent to an LCS)	$^{99}\text{Tc}$ , $^{235}\text{U}$ , $^{237}\text{Np}$ , $^{238}\text{U}$
Matrix spike	$^{99}\text{Tc}$ , $^{237}\text{Np}$ , $^{235}\text{U}$ , $^{238}\text{U}$
No standard or spike of either type	$^{233}\text{U}$ , $^{234}\text{U}$ , $^{236}\text{U}$

The LCS recoveries, MS recoveries, and RPDs generally met the criteria listed in the TSAP. In the case of  $^{233}\text{U}$ , the serial dilution percent difference and %RPD were greater than 10% and 20%, respectively; however, the sample results were less than the EQL and the requirements are not applicable. A low level of  $^{99}\text{Tc}$ ,  $^{233}\text{U}$ , and  $^{235}\text{U}$  were detected in the method blanks. In the case of  $^{99}\text{Tc}$ , the results were not flagged because the method blank concentration was less than

5% of the sample concentrations. A "B" flag was applied to the  $^{233}\text{U}$  and  $^{235}\text{U}$  results. The detection limits for the required analytes met the RDL in the TSAP. No MDL was listed in the TSAP for  $^{237}\text{Np}$  or  $^{238}\text{U}$ .

#### 4.1.11 Carbon Analysis

Total organic carbon was measured by both the furnace and persulfate oxidation methods. In addition, total carbon (TC) was determined by the furnace oxidation method, and total inorganic carbon (TIC) was determined by the persulfate oxidation method. These methods were performed on a direct subsample of each field blank, the surface sample, and each "B" sample.

The units for the results for the method blank are  $\mu\text{g}$ , as indicated in the raw data, not  $\mu\text{g/mL}$  as indicated in Attachment 1.

No minimum detection limits were specified in the TSAP. The reported results for all tank samples were above the EQL. The LCS recoveries, MS recoveries, and duplicate RPDs met the criteria listed in the TSAP for both methods. Low levels of TOC were detected in the method blank for the furnace method. The level was greater than 5% of the field blank results, which were flagged with a "B", but was less than 5% of the tank sample results.

## 4.2 RADIOCHEMICAL ANALYSIS

### 4.2.1 Total Alpha/Total Beta Analysis

The total alpha/total beta analysis was performed on a direct subsample of each "B" sample and both field blanks. An MS and MSD were required for the total alpha analysis, while a duplicate and MS were required for the total beta analysis. Since these two measurements are performed in a single analysis, a duplicate, MS, and MSD were analyzed for both analytes.

The LCS recoveries, MS and MSD recoveries, and duplicate and spike RPDs met the criteria listed in the TSAP. Duplicate RPDs and recoveries for the MS are presented in Attachment 1, but MSD recoveries and spike RPDs are not included in that attachment. Table 6 summarizes the MS and MSD recoveries and the RPDs for the MS/MSD.

**Table 6. Matrix Spike/Matrix Spike Duplicate Summary for Total Alpha and Total Beta Analysis.**

Laboratory Identification	Analyte	MS Recovery (%)	MSD Recovery (%)	RPD (%)
S09T001796	Total alpha	101	100	1.39
	Total beta	113	101	11.1

No alpha or beta activity was detected in the method blank or the field blank. No minimum detection limits were specified in the TSAP.



#### 4.2.2 Gamma Energy Analysis

Gamma energy analysis was performed on a direct subsample of the surface sample, each “B” sample and both field blanks. No MS was required. The LCS consists of a standard of  $^{60}\text{Co}$  and  $^{137}\text{Cs}$ . Table 4-1 of the TSAP listed the required analytes. In addition, the laboratory was asked to provide results for other analytes from the “typical tank farms list” and any positively identified gamma emitters that were not included in the list. Nonrequired gamma emitters from the “typical tank farms list” are included in Attachment 3; no additional gamma emitters were detected.

The LCS recoveries and RPDs met the criteria listed in the TSAP. No primary analytes were detected in the method blank or the field blanks. The TSAP specified a minimum detection limit for only  $^{137}\text{Cs}$ ; this detection limit was met.

#### 4.2.3 Strontium-90

The  $^{90}\text{Sr}$  analysis was performed on a direct subsample of the surface sample, each “B” sample and both field blanks. No MS was required.

The LCS recovery and RPD met the criteria listed in the TSAP. Strontium-90 activity was detected in the method blank and the field blanks; the levels found in the field blanks were approximately twice the method blank and had relatively large counting uncertainties and were flagged with a “B”. However, the blank activity was insignificant when compared to the tank samples, and no reanalysis was requested.

#### 4.2.4 Carbon-14

The  $^{14}\text{C}$  analysis was performed on a direct subsample of each “B” sample and both field blanks. The spike recovery, duplicate precision and LCS recovery met the requirements specified in the TSAP. No  $^{14}\text{C}$  activity was detected in the method blank or the field blanks. No minimum detection limit was specified in the TSAP for  $^{14}\text{C}$  activity.

#### 4.2.5 Iodine-129

The  $^{129}\text{I}$  analysis was performed on a direct subsample of each “B” sample and both field blanks. No duplicate analysis was required. The LCS recovery, MS and MSD recoveries, and the spike RPD met the criteria listed in the TSAP. Table 7 summarizes the MS and MSD recoveries and the RPD for the MS/MSD.

**Table 7. Matrix Spike/Matrix Spike Duplicate Summary  
for Iodine-129 Analysis.**

<b>Laboratory Identification</b>	<b>MS Recovery (%)</b>	<b>MSD Recovery (%)</b>	<b>RPD (%)</b>
S09T001796	109	107	2.40

No  $^{129}\text{I}$  activity was detected in the method blank or either of the field blanks. No minimum detection limit was specified in the TSAP for  $^{129}\text{I}$  activity.

#### 4.2.6 Selenium-79

The  $^{79}\text{Se}$  analysis was performed on a direct subsample of each “B” sample and both field blanks. No standard is available for this isotope, so no LCS or MS analysis was required. The RPD met the criteria listed in the TSAP. A low level of  $^{79}\text{Se}$  activity was detected in the method blank and field blanks. The activity levels in the blanks had relatively high counting uncertainties. However, the blank activity was insignificant when compared to the tank samples, and no reanalysis was requested. No minimum detection limit was specified in the TSAP for  $^{79}\text{Se}$  activity.

#### 4.2.7 Tritium

The  $^3\text{H}$  analysis was performed on a direct subsample of each “B” sample and both field blanks. An MS and MSD were analyzed on sample 6AW-08-02B; no duplicate analysis was required.

The LCS recovery, MS and MSD recoveries, and the spike RPD met the criteria listed in the TSAP. Table 8 summarizes the MS and MSD recoveries and the RPD for the MS/MSD.

**Table 8. Matrix Spike/Matrix Spike Duplicate Summary for Tritium Analysis.**

Laboratory Identification	MS Recovery (%)	MSD Recovery (%)	RPD (%)
S09T001782	95.3	92.5	3.06

A very low level of  $^3\text{H}$  activity was detected in the method blank. It was considered insignificant and no reanalysis was requested. No minimum detection limit was specified in the TSAP for  $^3\text{H}$  activity. The reported results for all tank samples were well above the EQL.

#### 4.2.8 Neptunium-237

The  $^{237}\text{Np}$  analysis was performed on a direct subsample of each “B” sample and both field blanks. No duplicate analysis was required.

The LCS recovery, MS and MSD recoveries, and the spike RPD met the criteria listed in the TSAP. Table 9 summarizes the MS and MSD recoveries and the RPD for the MS/MSD.

**Table 9. Matrix Spike/Matrix Spike Duplicate Summary for Neptunium-237 Analysis.**

Laboratory Identification	MS Recovery (%)	MSD Recovery (%)	RPD (%)
S09T001784	83.2	100.8	19.1

A very low level of  $^{237}\text{Np}$  activity was detected in the method blank. The activity was greater than 5% of the field blanks and they were flagged with a “B”. However, the blank activity was

insignificant when compared to the tank samples, and no reanalysis was requested. No minimum detection limit was specified in the TSAP for  $^{237}\text{Np}$  activity.

#### 4.2.9 Americium-241 and Curium-243/244

The analysis for  $^{241}\text{Am}$  and  $^{243/244}\text{Cm}$  was performed on a direct subsample of the surface sample, each "B" sample and both field blanks. An MS and MSD were required for the  $^{241}\text{Am}$ ; only a duplicate was required for  $^{243/244}\text{Cm}$ . Since all analytes are measured in a single analysis, a duplicate was run for both required analytes. In addition to  $^{241}\text{Am}$  and  $^{243/244}\text{Cm}$ ,  $^{242}\text{Cm}$  is also measured in this analysis, and results are reported in Attachment 3.

The LCS recovery, MS and MSD recoveries, and the duplicate and spike RPDs met the criteria listed in the TSAP. Table 10 summarizes the MS and MSD recoveries and the RPD for the  $^{241}\text{Am}$  MS/MSD.

**Table 10. Matrix Spike/Matrix Spike Duplicate Summary  
for Americium-241 Analysis.**

Laboratory Identification	MS Recovery (%)	MSD Recovery (%)	RPD (%)
S09T001784	105	105	0.411

No required analytes were detected in the method blank. The MDAs met the RDLs specified in the TSAP.

#### 4.2.10 Plutonium-238 and Plutonium-239/240

The analysis for  $^{238}\text{Pu}$  and  $^{239/240}\text{Pu}$  was performed on a direct subsample of the surface sample, each "B" sample and both field blanks. An MS and MSD were required for the  $^{239/240}\text{Pu}$ ; only a duplicate was required for  $^{238}\text{Pu}$ . Since all analytes are measured in a single analysis, a duplicate was run for both required analytes.

The LCS recovery, MS and MSD recoveries, and the duplicate and spike RPDs met the criteria listed in the TSAP. Table 11 summarizes the MS and MSD recoveries and the RPD for the MS/MSD.

**Table 11. Matrix Spike/Matrix Spike Duplicate Summary  
for Plutonium-239/240 Analysis.**

Laboratory Identification	MS Recovery (%)	MSD Recovery (%)	RPD (%)
S09T001784	107	111	4.14

No  $^{239/240}\text{Pu}$  or  $^{238}\text{Pu}$  activity was detected in the method blank. The MDAs met the RDLs specified in the TSAP.

### 4.3 ORGANIC ANALYSES

#### 4.3.1 Volatile Organic Analysis

Volatile organic compound analysis was performed on a direct subsample from the trip blank, both field blanks, and each "A" sample, except for sample 6AW-08-04B, which was analyzed due to the breakage of 6AW-08-04A. Table 4-1 of the TSAP listed three required compounds. Tentatively identified compounds are reported in Attachment 5.

Hold times for the analysis are shown in Table 12. The 14-day holding time was met for all samples.

**Table 12. Volatile Organic Analysis Hold Times.**

<b>Customer ID</b>	<b>Sample Number</b>	<b>Sampling Date</b>	<b>Analysis Date</b>	<b>Elapsed Time (days)</b>
6AW-08-01TB	S09T001768	3/4/09	3/10/09	6
6AW-08-01FB1	S09T001752	3/4/09	3/10/09	6
6AW-08-01FB2	S09T001757	3/4/09	3/10/09	6
6AW-08-02A	S09T001777	3/4/09	3/10/09	6
6AW-08-03A	S09T001789	3/4/09	3/10/09	6
6AW-08-04A	S09T001801	3/9/09	3/13/09	4

The LCS compounds all met the criteria specified in the TSAP. A summary of the surrogate recoveries is included in Attachment 4. All recoveries were within the laboratory acceptance limits except dibromofluoromethane; the failure was attributed to a matrix effect.

Methylene chloride was detected in the method blank. While they are calibrated compounds, both methylene chloride and tetrahydrofuran were reported as TICs in Attachment 5 due to a current limitation of this report.

The results for the MS and MSDs met the criteria specified in the TSAP and are summarized in Table 13.

**Table 13. Volatile Organic Analysis Matrix Spike/Matrix Spike Duplicate Summary.**

<b>Laboratory Identification</b>	<b>Analyte</b>	<b>MS Recovery (%)</b>	<b>MSD Recovery (%)</b>	<b>RPD (%)</b>
S09T001777	1,1-Dichloroethene	114	113	0.547
	Acetone	103	108	5.33
	2-Butanone	110	117	6.42
	1-Butanol	114	126	10.2
	Benzene	104	107	2.91
	Trichloroethene	103	106	2.67
	Toluene	101	106	5.27
	Chlorobenzene	102	106	3.47

No minimum detection limit was specified in the TSAP for VOAs.

#### 4.3.2 Semivolatile Organic Analysis

Semivolatile organic analysis was performed on a methylene chloride extraction of a subsample of the trip blank, both field blanks, and each “B” sample. Table 4-1 of the TSAP listed two required compounds.

The tentatively identified compounds are reported in Attachment 5. It is the laboratory’s opinion that dichloronitromethane and phosgene oxime are likely reaction products of methylene chloride and nitrous acid; 2-nitrophenol-D4 is a nitration product of a spiked surrogate compound; the other nitrated phenols were most likely nitrated during the acid extraction step.

Hold times for the analysis are shown in Table 14. The extraction and analysis holding time was met for all samples.

**Table 14. Semivolatile Organic Analysis Extraction and Analysis Hold Times.**

<b>Customer ID</b>	<b>Sample Number</b>	<b>Sampling Date</b>	<b>Extraction Date</b>	<b>Elapsed Time (Days)</b>	<b>Analysis Date</b>	<b>Elapsed Time (Days)</b>
6AW-08-01TB	S09T001769	3/4/09	3/11/09	7	3/13/09	4
6AW-08-01FB1	S09T001753	3/4/09	3/11/09	7	3/13/09	4
6AW-08-01FB2	S09T001764	3/4/09	3/11/09	7	3/13/09	4
6AW-08-02B	S09T001785	3/4/09	3/11/09	7	3/13/09	4
6AW-08-03B	S09T001797	3/4/09	3/11/09	7	3/13/09	4
6AW-08-04B	S09T001809	3/9/09	3/11/09	2	3/13/09	4

Only the two required compounds, 2-butoxyethanol and tri-n-butylphosphate, were included in the LCS, MS, and MSD standards. The LCS recoveries for tri-n-butylphosphate (79.8%) and 2-butoxyethanol (74.2%) met the requirements in the TSAP. No required compounds were detected in the preparation blanks.

The MS and MSD recoveries and the spike RPDs met the criteria specified in the TSAP. They are summarized in Table 15.

**Table 15. Semivolatile Organic Analysis Matrix Spike/Matrix Spike Duplicate Summary.**

Laboratory Identification	Analyte	MS Recovery (%)	MSD Recovery (%)	RPD (%)
S09T001797	2-Butoxyethanol	81.1	76.8	5.46
	Tri-n-butylphosphate	74.0	77.6	4.76

Surrogate recoveries are summarized in Attachment 4. Three of the six surrogates failed to meet the administrative control limits of 50%-150% for the tank samples (see Attachment 4): 2-fluorophenol, 2,4,6-tribromophenol, and phenol-d5. The phenol compounds are affected by the high concentration of nitrate and nitrite in the matrix. The presence of 2-nitrophenol-d4 in the samples indicates that the phenol surrogates were likely nitrated during the extraction. A reextraction and reanalysis was not expected to significantly improve the results.

#### 4.3.3 Polychlorinated Biphenyls Analysis

The PCB analysis was performed on a methylene chloride extraction of a subsample of both field blanks, the surface sample, and each "B" sample. There are no SW-846 specified holding times for PCBs.

No Aroclors were detected in any of the samples above the MDL. The LCS, MS, and MSD consisted of only Aroclor-1254 because it is the most common Aroclor detected in Hanford Site samples. The LCS, MS, and MSD recoveries met the requirements in the TSAP. The RPD for the MS and MSD met the requirement in the TSAP. The MS and MSD and spike RPD results are summarized in Table 16.

**Table 16. Polychlorinated Biphenyls Matrix Spike/Matrix Spike Duplicate Summary.**

Laboratory Identification	Analyte	MS Recovery (%)	MSD Recovery (%)	RPD (%)
S09T001775	Aroclor 1254	61.6	77.0	22.3

Surrogate recoveries are presented in Attachment 4. All of the surrogate recoveries were within the laboratory statistical control limits.

When comparing the results and MDLs reported in Attachment 1 to the RDL, note that the laboratory results and MDLs are reported in µg/L units whereas the RDL is listed in µg/mL units.

## 5. PROCEDURES

Table 17 lists the analytical procedures used for analysis of the AW-106 liquid grab samples.

**Table 17. Analytical Procedures.**

Analysis	Preparation Method	Analysis Procedure
<b>Inorganic Analyses</b>		
Appearance	Direct	LA-519-151, Rev. J-0
SpG	Direct	LA-510-112, Rev. I-0
pH	Direct	LA-212-106, Rev. G-0
Hydroxide	Direct	LA-211-102, Rev. I-0
DSC	Direct	LA-514-115, Rev. E-0
TGA – gravimetric	Direct	LA-514-115, Rev. E-0
Mercury	Direct	LA-325-106, Rev. G-0
Ammonia – IC	Distillation LA-544-112, Rev. D-0	LA-533-101, Rev. O-0
IC	Direct	LA-533-115, Rev. J-0
ICP	Direct	LA-505-161, Rev. I-0
ICP-MS: actinides	Direct	LA-506-102, Rev. E-0
ICP-MS: <sup>99</sup> Tc	Direct	LA-506-102, Rev. E-0
TC/TOC – furnace oxidation	Direct	LA-344-105, Rev. I-0
TIC/TOC – persulfate oxidation	Direct	LA-342-100, Rev. J-0
<b>Radiochemical Analyses</b>		
Total alpha/total beta	Direct	LA-508-101, Rev. L-2
GEA	Direct	LA-548-121, Rev. I-0
<sup>90</sup> Sr – separation/beta counting	Direct	LA-220-101, Rev. I-0
<sup>14</sup> C – liquid scintillation	Direct	LA-348-104, Rev. H-0
<sup>129</sup> I – separation/GEA	Direct	LA-378-103, Rev. K-0
<sup>79</sup> Se – liquid scintillation	Direct	LA-365-132, Rev. I-0
<sup>3</sup> H – liquid scintillation	Direct	LA-218-114, Rev. F-0
<sup>237</sup> Np – extraction/alpha count	Direct	LA-933-141, Rev. K-1
<sup>241</sup> Am – separation/alpha energy analysis(AEA)	Direct	LA-953-104, Rev. H-1
<sup>239/240</sup> Pu, <sup>238</sup> Pu – separation/AEA	Direct	LA-953-104, Rev. H-1
<b>Organic Analyses</b>		
VOC – gas chromatography (GC)/MS	Direct	LA-523-118, Rev. G-0
SVOC – GC/MS	Extraction LA-523-115, Rev. G-0	LA-523-135, Rev. C-0
PCB – GC/electron capture detector	Extraction LA-523-115, Rev. G-0	LA-523-140, Rev. F-0

## 6. REFERENCES

- ATL-MP-1011, 2008, *ATL Quality Assurance Project Plan for 222-S Laboratory*, Rev. 8, Advanced Technologies and Laboratories International, Inc., Richland, Washington.
- RPP-PLAN-39120, 2008, *Tank 241-AW-106 Grab Sampling and Analysis Plan in Support of Evaporator Campaign for Fiscal Year 2009*, Rev. 0, CH2M HILL Hanford Group, Inc., Richland, Washington.
- SW-846, 1986, *Test Methods for Evaluating Solid Waste: Physical/Chemical Methods*, Third Edition, as amended, U.S. Environmental Protection Agency, Washington, D.C.



**Attachment 1**

**DATA SUMMARY REPORT**

**AW106 EVAP3**  
**Data Summary Report**

**Sample Group: 20090162**

**Riser: 014**

**Segment Number: 6AW-08-01**

**Segment Portion: Grab Sample (Total)**

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S09T001770			ORGVOL	Organic Volume Present	mL	n/a	n/a	0.0	n/a	n/a	n/a	n/a	n/a	n/a	Q
S09T001770			MASS	Mass	g	n/a	n/a	306	n/a	n/a	n/a	n/a	n/a	n/a	Q
S09T001770			VOL%SETS	Volume percent settled solids	%	n/a	n/a	0.0	n/a	n/a	n/a	n/a	n/a	n/a	Q
S09T001770				Volume of Sample	mL	n/a	n/a	250	n/a	n/a	n/a	n/a	n/a	n/a	Q
S09T001770			SPECGRAVI	Specific gravity	unitless	99.17	n/a	1.208	1.204	1.206	0.3317	n/a	1.000E-03	n/a	
S09T001771			CM-243/244	Curium-243/244	uCi/mL	n/a	<1.10E-06	<7.14E-06	n/a	n/a	n/a	n/a	7.14E-06	n/a	U
S09T001771			14596-10-2	Americium-241	uCi/mL	99.4	<2.75E-06	1.46E-04	n/a	n/a	n/a	n/a	1.78E-05	2.81	
S09T001771			10198-40-0	Cobalt-60	uCi/mL	102	<2.62E-05	<0.0103	n/a	n/a	n/a	n/a	0.0103	n/a	U
S09T001771			14681-63-1	Niobium-94	uCi/mL	n/a	<2.48E-05	<0.0111	n/a	n/a	n/a	n/a	0.0111	n/a	U
S09T001771			RU/RH-106	Ruthenium/Rhodium-106	uCi/mL	n/a	<3.94E-04	<1.40	n/a	n/a	n/a	n/a	1.40	n/a	U
S09T001771			13967-70-9	Cesium-134	uCi/mL	n/a	<2.49E-05	<0.0706	n/a	n/a	n/a	n/a	0.0706	n/a	U
S09T001771			10045-97-3	Cesium-137	uCi/mL	103	<3.16E-05	208	n/a	n/a	n/a	n/a	0.113	4.23	
S09T001771			14762-78-8	Cerium-144	uCi/mL	n/a	<8.67E-05	<0.413	n/a	n/a	n/a	n/a	0.413	n/a	U
S09T001771			15585-10-1	Europium-154	uCi/mL	n/a	<7.62E-05	<0.0322	n/a	n/a	n/a	n/a	0.0322	n/a	U
S09T001771			14391-16-3	Europium-155	uCi/mL	n/a	<3.67E-05	<0.180	n/a	n/a	n/a	n/a	0.180	n/a	U
S09T001771			13982-63-3	Radium-226	uCi/mL	n/a	<3.81E-04	<2.05	n/a	n/a	n/a	n/a	2.05	n/a	U
S09T001771			PU-239/240	Plutonium-239/240	uCi/mL	100	<1.98E-06	1.13E-03	n/a	n/a	n/a	n/a	6.06E-05	2.08	
S09T001771			13981-16-3	Plutonium-238	uCi/mL	n/a	<1.98E-06	1.38E-04	n/a	n/a	n/a	n/a	6.06E-05	3.78	
S09T001771			SR-89/90	Strontium-89/90	uCi/mL	96.5	1.41E-06	1.15	n/a	n/a	n/a	n/a	1.06E-04	0.53	
S09T001772			7439-97-6	Mercury	ug/mL	98.1	<1.00E-04	6.84E-03	n/a	n/a	n/a	n/a	1.00E-03	n/a	J
S09T001772			16984-48-8	Fluoride	ug/mL	96.7	<1.61E-03	330	331	330	0.433	97.3	1.79	n/a	
S09T001772			16887-00-6	Chloride	ug/mL	99.0	<9.98E-03	1.57E+03	1.57E+03	1.57E+03	0.0	84.1	11.1	n/a	
S09T001772			14797-65-0	Nitrite	ug/mL	101	<0.0192	3.21E+04	3.27E+04	3.24E+04	1.80	98.5	196	n/a	
S09T001772			14808-79-8	Sulfate	ug/mL	99.7	<0.0187	6.64E+03	6.67E+03	6.65E+03	0.394	93.0	20.8	n/a	
S09T001772			14797-55-8	Nitrate	ug/mL	99.5	<0.0208	1.10E+05	1.12E+05	1.11E+05	2.26	97.7	212	n/a	
S09T001772			14265-44-2	Phosphate	ug/mL	98.0	<0.0167	2.63E+03	2.61E+03	2.62E+03	0.569	98.0	18.6	n/a	
S09T001772			PH	pH	unitless	n/a	n/a	>13.500	>13.500	n/a	n/a	n/a	0.0100	n/a	J
S09T001772			TOC	Total organic carbon	ug/mL	91.8	<20.0	1.46E+03	1.43E+03	1.44E+03	2.08	102	100	n/a	

NA = Not Analyzed, ND = Not Detected

U - Less Than Detection Limit  
Q - Qualitative

B - Blank Contamination  
J - Estimated

b - MS/MSD Outside Range

e - SERDIL Outside Range

AW106 EVAP3  
Data Summary Report

Sample Group: 20090162

Riser: 014

Segment Number: 6AW-08-01

Segment Portion: Grab Sample (Total)

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S09T001772			TIC	Total inorganic carbon	ug/mL	98.3	<7.00	4.79E+03	4.87E+03	4.83E+03	1.66	112	35.0	n/a	
S09T001773			DSC-02	Exotherms - calculated dry weight	J/g DW	n/a	n/a	0.0	0.0	0.0	0.0	n/a	n/a	n/a	
S09T001773			DSC-01	DSC Exotherm	J/g	98.9	n/a	0.0	0.0	0.0	0.0	n/a	n/a	n/a	
S09T001773			7440-22-4	Silver	ug/mL	97.3	<5.00E-03	<2.00	<2.00	n/a	n/a	92.6	2.00	n/a	U
S09T001773			7429-90-5	Aluminum	ug/mL	99.0	<0.0300	6.25E+03	6.28E+03	6.26E+03	0.472	97.7	12.0	n/a	
S09T001773			7440-38-2	Arsenic	ug/mL	103	<0.0500	<20.0	<20.0	n/a	n/a	103	20.0	n/a	U
S09T001773			7440-41-7	Beryllium	ug/mL	100	<1.00E-03	<0.400	<0.400	n/a	n/a	95.5	0.400	n/a	U
S09T001773			7440-69-9	Bismuth	ug/mL	98.6	<0.100	<40.0	<40.0	n/a	n/a	99.6	40.0	n/a	U
S09T001773			7440-70-2	Calcium	ug/mL	109	<0.0500	<20.0	<20.0	n/a	n/a	92.1	20.0	n/a	U
S09T001773			7440-43-9	Cadmium	ug/mL	99.2	<5.00E-03	<2.00	<2.00	n/a	n/a	97.1	2.00	n/a	U
S09T001773			7440-48-4	Cobalt	ug/mL	101	<0.0100	<4.00	<4.00	n/a	n/a	97.4	4.00	n/a	U
S09T001773			7440-47-3	Chromium	ug/mL	99.9	<5.00E-03	591	592	592	0.105	97.8	2.00	n/a	
S09T001773			7439-89-6	Iron	ug/mL	101	<5.00E-03	2.01	2.43	2.22	18.8	96.6	2.00	n/a	J
S09T001773			7440-09-7	Potassium	ug/mL	102	<0.500	1.49E+03	1.57E+03	1.53E+03	4.80	91.8	200	n/a	J
S09T001773			7439-91-0	Lanthanum	ug/mL	99.1	<3.00E-03	<1.20	<1.20	n/a	n/a	97.3	1.20	n/a	U
S09T001773			7439-96-5	Manganese	ug/mL	98.2	<3.00E-03	<1.20	<1.20	n/a	n/a	97.7	1.20	n/a	U
S09T001773			7440-23-5	Sodium	ug/mL	102	<0.100	8.59E+04	8.82E+04	8.70E+04	2.66	99.0	40.0	n/a	e
S09T001773			7440-02-0	Nickel	ug/mL	98.6	<0.0200	10.9	8.33	9.61	26.8	96.0	8.00	n/a	J
S09T001773			7439-92-1	Lead	ug/mL	103	<0.0500	<20.0	<20.0	n/a	n/a	100	20.0	n/a	U
S09T001773			7440-16-6	Rhodium	ug/mL	102	<0.0500	<20.0	<20.0	n/a	n/a	100	20.0	n/a	U
S09T001773			7782-49-2	Selenium	ug/mL	101	<0.100	<40.0	<40.0	n/a	n/a	108	40.0	n/a	U
S09T001773			7440-21-3	Silicon	ug/mL	95.5	<0.0300	<12.0	12.0	n/a	n/a	94.6	12.0	n/a	U
S09T001773			7440-24-6	Strontium	ug/mL	100	<3.00E-03	<1.20	<1.20	n/a	n/a	97.5	1.20	n/a	U
S09T001773			7440-61-1	Uranium	ug/mL	103	<0.100	<40.0	<40.0	n/a	n/a	97.2	40.0	n/a	U
S09T001773			7440-33-7	Tungsten	ug/mL	101	<0.200	<80.0	<80.0	n/a	n/a	99.8	80.0	n/a	U
S09T001773			7440-66-6	Zinc	ug/mL	97.6	<5.00E-03	<2.00	<2.00	n/a	n/a	97.8	2.00	n/a	U
S09T001773			7440-67-7	Zirconium	ug/mL	97.5	<5.00E-03	<2.00	<2.00	n/a	n/a	89.9	2.00	n/a	U
S09T001773			HYDROXID	Hydroxide	ug/mL	95	<42	7.6E+03	n/a	n/a	n/a	n/a	2.5E+03	n/a	

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AW106 EVAP3  
Data Summary Report

Sample Group: 20090162

Riser: 014

Segment Number: 6AW-08-01

Segment Portion: Grab Sample (Total)

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S09T001773			%WATER	Percent water	%	98.7	n/a	70.1	69.3	69.7	1.16	n/a	0.0100	n/a	
S09T001773			TC	Total carbon	ug/mL	92.1	<1.00	6.39E+03	6.56E+03	6.48E+03	2.63	86.4	105	n/a	
S09T001773			TOC	Total organic carbon	ug/mL	105	1.00	1.83E+03	1.87E+03	1.85E+03	2.08	92.5	55.0	n/a	
S09T001775	O		12674-11-2	Aroclor 1016	ug/L	n/a	<5.40	<37.8	n/a	n/a	n/a	n/a	37.8	n/a	U
S09T001775	O		11104-28-2	Aroclor 1221	ug/L	n/a	<1.01	<7.10	n/a	n/a	n/a	n/a	7.10	n/a	U
S09T001775	O		11141-16-5	Aroclor 1232	ug/L	n/a	<1.17	<8.20	n/a	n/a	n/a	n/a	8.20	n/a	U
S09T001775	O		53469-21-9	Aroclor 1242	ug/L	n/a	<1.80	<12.6	n/a	n/a	n/a	n/a	12.6	n/a	U
S09T001775	O		12672-29-6	Aroclor 1248	ug/L	n/a	<1.01	<7.10	n/a	n/a	n/a	n/a	7.10	n/a	U
S09T001775	O		11097-69-1	Aroclor 1254	ug/L	77.7	<0.371	<2.60	n/a	n/a	n/a	61.6	2.60	n/a	Ub
S09T001775	O		11096-82-5	Aroclor 1260	ug/L	n/a	<4.09	<28.6	n/a	n/a	n/a	n/a	28.6	n/a	U

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e - SERDIL Outside Range

**AW106 EVAP3**  
**Data Summary Report**

Sample Group: 20090162

Riser: 014

Segment Number: 6AW-08-01FB1

Segment Portion: Field Blank

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S09T001751			12587-46-1	Gross alpha	uCi/mL	96.7	<4.77E-07	<4.77E-07	n/a	n/a	n/a	n/a	4.77E-07	n/a	U
S09T001751			12587-47-2	Gross beta	uCi/mL	107	<7.87E-07	2.96E-05	n/a	n/a	n/a	n/a	7.87E-07	7.0	
S09T001751			CM-243/244	Curium-243/244	uCi/mL	n/a	<1.10E-06	<1.14E-06	n/a	n/a	n/a	n/a	1.14E-06	n/a	U
S09T001751			14596-10-2	Americium-241	uCi/mL	99.4	<2.75E-06	<2.85E-06	n/a	n/a	n/a	n/a	2.85E-06	n/a	U
S09T001751			VOL%SETS	Volume percent settled solids	%	n/a	n/a	0.0	n/a	n/a	n/a	n/a	n/a	n/a	Q
S09T001751			14762-75-5	Carbon-14	uCi/mL	94.6	<9.85E-07	<1.51E-06	n/a	n/a	n/a	n/a	1.51E-06	n/a	U
S09T001751			10198-40-0	Cobalt-60	uCi/mL	102	<2.62E-05	<2.43E-05	n/a	n/a	n/a	n/a	2.43E-05	n/a	U
S09T001751			14681-63-1	Niobium-94	uCi/mL	n/a	<2.48E-05	<2.30E-05	n/a	n/a	n/a	n/a	2.30E-05	n/a	U
S09T001751			RU/RH-106	Ruthenium/Rhodium-106	uCi/mL	n/a	<3.94E-04	<4.07E-04	n/a	n/a	n/a	n/a	4.07E-04	n/a	U
S09T001751			13967-70-9	Cesium-134	uCi/mL	n/a	<2.49E-05	<2.54E-05	n/a	n/a	n/a	n/a	2.54E-05	n/a	U
S09T001751			10045-97-3	Cesium-137	uCi/mL	103	<3.16E-05	<2.96E-05	n/a	n/a	n/a	n/a	2.96E-05	n/a	U
S09T001751			14762-78-8	Cerium-144	uCi/mL	n/a	<8.67E-05	<8.50E-05	n/a	n/a	n/a	n/a	8.50E-05	n/a	U
S09T001751			15585-10-1	Europium-154	uCi/mL	n/a	<7.62E-05	<6.98E-05	n/a	n/a	n/a	n/a	6.98E-05	n/a	U
S09T001751			14391-16-3	Europium-155	uCi/mL	n/a	<3.67E-05	<3.92E-05	n/a	n/a	n/a	n/a	3.92E-05	n/a	U
S09T001751			13982-63-3	Radium-226	uCi/mL	n/a	<3.81E-04	<4.11E-04	n/a	n/a	n/a	n/a	4.11E-04	n/a	U
S09T001751			7439-97-6	Mercury	ug/mL	98.1	<1.00E-04	<1.00E-03	n/a	n/a	n/a	n/a	1.00E-03	n/a	U
S09T001751			16984-48-8	Fluoride	ug/mL	100	<1.61E-03	<1.61E-03	n/a	n/a	n/a	n/a	1.61E-03	n/a	U
S09T001751			16887-00-6	Chloride	ug/mL	105	<9.98E-03	0.0325	n/a	n/a	n/a	n/a	9.98E-03	n/a	J
S09T001751			14797-65-0	Nitrite	ug/mL	101	<0.0192	<0.0192	n/a	n/a	n/a	n/a	0.0192	n/a	U
S09T001751			14808-79-8	Sulfate	ug/mL	103	<0.0187	<0.0187	n/a	n/a	n/a	n/a	0.0187	n/a	U
S09T001751			14797-55-8	Nitrate	ug/mL	99.5	<0.0208	<0.0208	n/a	n/a	n/a	n/a	0.0208	n/a	U
S09T001751			14265-44-2	Phosphate	ug/mL	102	<0.0167	<0.0167	n/a	n/a	n/a	n/a	0.0167	n/a	U
S09T001751			7440-22-4	Silver	ug/mL	97.8	<5.00E-03	<5.00E-03	n/a	n/a	n/a	n/a	5.00E-03	n/a	U
S09T001751			7429-90-5	Aluminum	ug/mL	99.6	<0.0300	<0.0300	n/a	n/a	n/a	n/a	0.0300	n/a	U
S09T001751			7440-38-2	Arsenic	ug/mL	104	<0.0500	<0.0500	n/a	n/a	n/a	n/a	0.0500	n/a	U
S09T001751			7440-41-7	Beryllium	ug/mL	101	<1.00E-03	<1.00E-03	n/a	n/a	n/a	n/a	1.00E-03	n/a	U
S09T001751			7440-69-9	Bismuth	ug/mL	99.4	<0.100	<0.100	n/a	n/a	n/a	n/a	0.100	n/a	U
S09T001751			7440-70-2	Calcium	ug/mL	108	<0.0500	0.321	n/a	n/a	n/a	n/a	0.0500	n/a	J

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AW106 EVAP3  
Data Summary Report

Sample Group: 20090162

Riser: 014

Segment Number: 6AW-08-01FB1

Segment Portion: Field Blank

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S09T001751			7440-43-9	Cadmium	ug/mL	99.7	<5.00E-03	<5.00E-03	n/a	n/a	n/a	n/a	5.00E-03	n/a	U
S09T001751			7440-48-4	Cobalt	ug/mL	101	<0.0100	<0.0100	n/a	n/a	n/a	n/a	0.0100	n/a	U
S09T001751			7440-47-3	Chromium	ug/mL	99.4	<5.00E-03	<5.00E-03	n/a	n/a	n/a	n/a	5.00E-03	n/a	U
S09T001751			7439-89-6	Iron	ug/mL	101	0.0120	<5.00E-03	n/a	n/a	n/a	n/a	5.00E-03	n/a	U
S09T001751			7440-09-7	Potassium	ug/mL	103	<0.500	<0.500	n/a	n/a	n/a	n/a	0.500	n/a	U
S09T001751			7439-91-0	Lanthanum	ug/mL	100	<3.00E-03	<3.00E-03	n/a	n/a	n/a	n/a	3.00E-03	n/a	U
S09T001751			7439-96-5	Manganese	ug/mL	97.9	<3.00E-03	<3.00E-03	n/a	n/a	n/a	n/a	3.00E-03	n/a	U
S09T001751			7440-23-5	Sodium	ug/mL	100	<0.100	0.528	n/a	n/a	n/a	n/a	0.100	n/a	J
S09T001751			7440-02-0	Nickel	ug/mL	98.6	0.0236	<0.0200	n/a	n/a	n/a	n/a	0.0200	n/a	U
S09T001751			7439-92-1	Lead	ug/mL	104	<0.0500	<0.0500	n/a	n/a	n/a	n/a	0.0500	n/a	U
S09T001751			7440-16-6	Rhodium	ug/mL	100	<0.0500	<0.0500	n/a	n/a	n/a	n/a	0.0500	n/a	U
S09T001751			7782-49-2	Selenium	ug/mL	103	<0.100	<0.100	n/a	n/a	n/a	n/a	0.100	n/a	U
S09T001751			7440-21-3	Silicon	ug/mL	96.1	<0.0300	1.20	n/a	n/a	n/a	n/a	0.0300	n/a	
S09T001751			7440-24-6	Strontium	ug/mL	101	<3.00E-03	0.0451	n/a	n/a	n/a	n/a	3.00E-03	n/a	
S09T001751			7440-61-1	Uranium	ug/mL	106	<0.100	<0.100	n/a	n/a	n/a	n/a	0.100	n/a	U
S09T001751			7440-33-7	Tungsten	ug/mL	105	<0.200	<0.200	n/a	n/a	n/a	n/a	0.200	n/a	U
S09T001751			7440-66-6	Zinc	ug/mL	97.2	<5.00E-03	<5.00E-03	n/a	n/a	n/a	n/a	5.00E-03	n/a	U
S09T001751			7440-67-7	Zirconium	ug/mL	97.8	<5.00E-03	<5.00E-03	n/a	n/a	n/a	n/a	5.00E-03	n/a	U
S09T001751			15046-84-1	Iodine-129	uCi/mL	110	<2.16E-06	<4.43E-05	n/a	n/a	n/a	n/a	4.43E-05	n/a	U
S09T001751			13968-55-3	Uranium-233	ug/mL	n/a	1.50E-08	<1.00E-07	n/a	n/a	n/a	n/a	1.00E-07	n/a	U
S09T001751			15117-96-1	Uranium-235	ug/mL	96.8	1.10E-08	1.53E-07	n/a	n/a	n/a	n/a	1.10E-07	n/a	BJ
S09T001751			13994-20-2	Neptunium-237	ug/mL	105	<5.30E-08	<5.30E-07	n/a	n/a	n/a	n/a	5.30E-07	n/a	U
S09T001751			U-238	Uranium-238	ug/mL	99.7	<5.50E-07	<5.50E-06	n/a	n/a	n/a	n/a	5.50E-06	n/a	U
S09T001751			14133-76-7	Technetium-99	ug/mL	101	<3.00E-07	<3.00E-06	n/a	n/a	n/a	n/a	3.00E-06	n/a	U
S09T001751			13994-20-2	Neptunium-237	uCi/mL	101	1.47E-05	1.90E-05	n/a	n/a	n/a	n/a	1.43E-05	97.3	BJ
S09T001751			PH	pH	unitless	n/a	n/a	10.2	10.2	10.2	0.197	n/a	0.0100	n/a	
S09T001751			PU-239/240	Plutonium-239/240	uCi/mL	100	<1.98E-06	<2.06E-06	n/a	n/a	n/a	n/a	2.06E-06	n/a	U
S09T001751			13981-16-3	Plutonium-238	uCi/mL	n/a	<1.98E-06	<2.06E-06	n/a	n/a	n/a	n/a	2.06E-06	n/a	U

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**AW106 EVAP3**  
**Data Summary Report**

Sample Group: 20090162

Riser: 014

Segment Number: 6AW-08-01FB1

Segment Portion: Field Blank

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S09T001751			15758-45-9	Selenium-79	uCi/mL	n/a	8.04E-06	6.10E-06	n/a	n/a	n/a	n/a	2.22E-06	111.17	BJ
S09T001751			SR-89/90	Strontium-89/90	uCi/mL	96.5	1.41E-06	2.85E-06	n/a	n/a	n/a	n/a	1.06E-06	63.67	BJ
S09T001751			TOC	Total organic carbon	ug/mL	91.8	<20.0	<20.0	n/a	n/a	n/a	n/a	20.0	n/a	U
S09T001751			TIC	Total inorganic carbon	ug/mL	98.3	<7.00	<7.00	n/a	n/a	n/a	n/a	7.00	n/a	U
S09T001751			TC	Total carbon	ug/mL	92.1	<1.00	<5.00	n/a	n/a	n/a	n/a	5.00	n/a	U
S09T001751			TOC	Total organic carbon	ug/mL	105	1.00	10.4	n/a	n/a	n/a	n/a	5.50	n/a	BJ
S09T001751			10028-17-8	Tritium	uCi/mL	92.0	3.13E-06	<6.92E-07	n/a	n/a	n/a	n/a	6.92E-07	n/a	U
S09T001752			71-36-3	1-Butanol	ug/L	87.4	<7.77	<8.63	n/a	n/a	n/a	n/a	8.63	n/a	U
S09T001752			67-64-1	Acetone	ug/L	90.0	<2.19	<2.43	n/a	n/a	n/a	n/a	2.43	n/a	U
S09T001752			78-93-3	2-Butanone	ug/L	95.7	<1.33	<1.48	n/a	n/a	n/a	n/a	1.48	n/a	U
S09T001753	O		111-76-2	2-Butoxyethanol	ug/L	74.2	<30.3	<212	n/a	n/a	n/a	n/a	212	n/a	U
S09T001753	O		126-73-8	Tributyl phosphate	ug/L	79.8	<6.37	<44.6	n/a	n/a	n/a	n/a	44.6	n/a	U
S09T001754	O		12674-11-2	Aroclor 1016	ug/L	n/a	<5.40	<37.8	n/a	n/a	n/a	n/a	37.8	n/a	U
S09T001754	O		11104-28-2	Aroclor 1221	ug/L	n/a	<1.01	<7.10	n/a	n/a	n/a	n/a	7.10	n/a	U
S09T001754	O		11141-16-5	Aroclor 1232	ug/L	n/a	<1.17	<8.20	n/a	n/a	n/a	n/a	8.20	n/a	U
S09T001754	O		53469-21-9	Aroclor 1242	ug/L	n/a	<1.80	<12.6	n/a	n/a	n/a	n/a	12.6	n/a	U
S09T001754	O		12672-29-6	Aroclor 1248	ug/L	n/a	<1.01	<7.10	n/a	n/a	n/a	n/a	7.10	n/a	U
S09T001754	O		11097-69-1	Aroclor 1254	ug/L	77.7	<0.371	<2.60	n/a	n/a	n/a	n/a	2.60	n/a	U
S09T001754	O		11096-82-5	Aroclor 1260	ug/L	n/a	<4.09	<28.6	n/a	n/a	n/a	n/a	28.6	n/a	U
S09T001755	S		14798-03-9	Ammonium	ug/mL	96.8	1.75	<0.120	n/a	n/a	n/a	n/a	0.120	n/a	U

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AW106 EVAP3  
Data Summary Report

Sample Group: 20090162

Riser: 014

Segment Number: 6AW-08-01FB2

Segment Portion: Field Blank

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S09T001756			ORGVOL	Organic Volume Present	mL	n/a	n/a	0.0	n/a	n/a	n/a	n/a	n/a	n/a	Q
S09T001756			MASS	Mass	g	n/a	n/a	242	n/a	n/a	n/a	n/a	n/a	n/a	Q
S09T001756			VOL%SETS	Volume percent settled solids	%	n/a	n/a	0.0	n/a	n/a	n/a	n/a	n/a	n/a	Q
S09T001756				Volume of Sample	mL	n/a	n/a	250	n/a	n/a	n/a	n/a	n/a	n/a	Q
S09T001757			71-36-3	1-Butanol	ug/L	87.4	<7.77	<311	n/a	n/a	n/a	n/a	311	n/a	U
S09T001757			67-64-1	Acetone	ug/L	90.0	<2.19	<87.6	n/a	n/a	n/a	n/a	87.6	n/a	U
S09T001757			78-93-3	2-Butanone	ug/L	95.7	<1.33	<53.2	n/a	n/a	n/a	n/a	53.2	n/a	U
S09T001761			14762-75-5	Carbon-14	uCi/mL	94.6	<9.85E-07	<8.89E-07	n/a	n/a	n/a	n/a	8.89E-07	n/a	U
S09T001761			7439-97-6	Mercury	ug/mL	98.1	<1.00E-04	<2.00E-03	n/a	n/a	n/a	n/a	2.00E-03	n/a	U
S09T001761			7440-22-4	Silver	ug/mL	97.8	<5.00E-03	<5.00E-03	n/a	n/a	n/a	n/a	5.00E-03	n/a	U
S09T001761			7429-90-5	Aluminum	ug/mL	99.6	<0.0300	<0.0300	n/a	n/a	n/a	n/a	0.0300	n/a	U
S09T001761			7440-38-2	Arsenic	ug/mL	104	<0.0500	<0.0500	n/a	n/a	n/a	n/a	0.0500	n/a	U
S09T001761			7440-41-7	Beryllium	ug/mL	101	<1.00E-03	<1.00E-03	n/a	n/a	n/a	n/a	1.00E-03	n/a	U
S09T001761			7440-69-9	Bismuth	ug/mL	99.4	<0.100	<0.100	n/a	n/a	n/a	n/a	0.100	n/a	U
S09T001761			7440-70-2	Calcium	ug/mL	108	<0.0500	<0.0500	n/a	n/a	n/a	n/a	0.0500	n/a	U
S09T001761			7440-43-9	Cadmium	ug/mL	99.7	<5.00E-03	<5.00E-03	n/a	n/a	n/a	n/a	5.00E-03	n/a	U
S09T001761			7440-48-4	Cobalt	ug/mL	101	<0.0100	<0.0100	n/a	n/a	n/a	n/a	0.0100	n/a	U
S09T001761			7440-47-3	Chromium	ug/mL	99.4	<5.00E-03	<5.00E-03	n/a	n/a	n/a	n/a	5.00E-03	n/a	U
S09T001761			7439-89-6	Iron	ug/mL	101	0.0120	<5.00E-03	n/a	n/a	n/a	n/a	5.00E-03	n/a	U
S09T001761			7440-09-7	Potassium	ug/mL	103	<0.500	<0.500	n/a	n/a	n/a	n/a	0.500	n/a	U
S09T001761			7439-91-0	Lanthanum	ug/mL	100	<3.00E-03	<3.00E-03	n/a	n/a	n/a	n/a	3.00E-03	n/a	U
S09T001761			7439-96-5	Manganese	ug/mL	97.9	<3.00E-03	<3.00E-03	n/a	n/a	n/a	n/a	3.00E-03	n/a	U
S09T001761			7440-23-5	Sodium	ug/mL	100	<0.100	3.00	n/a	n/a	n/a	n/a	0.100	n/a	
S09T001761			7440-02-0	Nickel	ug/mL	98.6	0.0236	<0.0200	n/a	n/a	n/a	n/a	0.0200	n/a	U
S09T001761			7439-92-1	Lead	ug/mL	104	<0.0500	0.0514	n/a	n/a	n/a	n/a	0.0500	n/a	J
S09T001761			7440-16-6	Rhodium	ug/mL	100	<0.0500	<0.0500	n/a	n/a	n/a	n/a	0.0500	n/a	U
S09T001761			7782-49-2	Selenium	ug/mL	103	<0.100	<0.100	n/a	n/a	n/a	n/a	0.100	n/a	U
S09T001761			7440-21-3	Silicon	ug/mL	96.1	<0.0300	4.10	n/a	n/a	n/a	n/a	0.0300	n/a	

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**AW106 EVAP3**  
**Data Summary Report**

Sample Group: 20090162

Riser: 014

Segment Number: 6AW-08-01FB2

Segment Portion: Field Blank

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S09T001761			7440-24-6	Strontium	ug/mL	101	<3.00E-03	<3.00E-03	n/a	n/a	n/a	n/a	3.00E-03	n/a	U
S09T001761			7440-61-1	Uranium	ug/mL	106	<0.100	<0.100	n/a	n/a	n/a	n/a	0.100	n/a	U
S09T001761			7440-33-7	Tungsten	ug/mL	105	<0.200	<0.200	n/a	n/a	n/a	n/a	0.200	n/a	U
S09T001761			7440-66-6	Zinc	ug/mL	97.2	<5.00E-03	<5.00E-03	n/a	n/a	n/a	n/a	5.00E-03	n/a	U
S09T001761			7440-67-7	Zirconium	ug/mL	97.8	<5.00E-03	<5.00E-03	n/a	n/a	n/a	n/a	5.00E-03	n/a	U
S09T001761			15758-45-9	Selenium-79	uCi/mL	n/a	8.04E-06	4.68E-06	n/a	n/a	n/a	n/a	1.72E-06	139.45	BJ
S09T001761			10028-17-8	Tritium	uCi/mL	92.0	3.13E-06	<6.93E-07	n/a	n/a	n/a	n/a	6.93E-07	n/a	U
S09T001762			16984-48-8	Fluoride	ug/mL	100	<1.61E-03	<1.61E-03	n/a	n/a	n/a	n/a	1.61E-03	n/a	U
S09T001762			16887-00-6	Chloride	ug/mL	105	<9.98E-03	0.0808	n/a	n/a	n/a	n/a	9.98E-03	n/a	J
S09T001762			14797-65-0	Nitrite	ug/mL	101	<0.0192	<0.0192	n/a	n/a	n/a	n/a	0.0192	n/a	U
S09T001762			14808-79-8	Sulfate	ug/mL	103	<0.0187	<0.0187	n/a	n/a	n/a	n/a	0.0187	n/a	U
S09T001762			14797-55-8	Nitrate	ug/mL	99.5	<0.0208	0.0951	n/a	n/a	n/a	n/a	0.0208	n/a	J
S09T001762			14265-44-2	Phosphate	ug/mL	102	<0.0167	<0.0167	n/a	n/a	n/a	n/a	0.0167	n/a	U
S09T001762			PH	pH	unitless	n/a	n/a	6.75	n/a	n/a	n/a	n/a	0.0100	n/a	
S09T001762			TOC	Total organic carbon	ug/mL	91.8	<20.0	<20.0	n/a	n/a	n/a	n/a	20.0	n/a	U
S09T001762			TIC	Total inorganic carbon	ug/mL	98.3	<7.00	<7.00	n/a	n/a	n/a	n/a	7.00	n/a	U
S09T001762			TC	Total carbon	ug/mL	92.1	<1.00	<5.00	n/a	n/a	n/a	n/a	5.00	n/a	U
S09T001762			TOC	Total organic carbon	ug/mL	105	1.00	6.60	n/a	n/a	n/a	n/a	5.50	n/a	BJ
S09T001763			12587-46-1	Gross alpha	uCi/mL	96.7	<4.77E-07	<5.97E-07	n/a	n/a	n/a	n/a	5.97E-07	n/a	U
S09T001763			12587-47-2	Gross beta	uCi/mL	107	<7.87E-07	3.13E-05	n/a	n/a	n/a	n/a	7.87E-07	6.7	
S09T001763			CM-243/244	Curium-243/244	uCi/mL	n/a	<1.10E-06	<1.04E-06	n/a	n/a	n/a	n/a	1.04E-06	n/a	U
S09T001763			14596-10-2	Americium-241	uCi/mL	99.4	<2.75E-06	<2.60E-06	n/a	n/a	n/a	n/a	2.60E-06	n/a	U
S09T001763			10198-40-0	Cobalt-60	uCi/mL	102	<2.62E-05	<2.42E-05	n/a	n/a	n/a	n/a	2.42E-05	n/a	U
S09T001763			14681-63-1	Niobium-94	uCi/mL	n/a	<2.48E-05	<2.37E-05	n/a	n/a	n/a	n/a	2.37E-05	n/a	U
S09T001763			RU/RH-106	Ruthenium/Rhodium-106	uCi/mL	n/a	<3.94E-04	<4.19E-04	n/a	n/a	n/a	n/a	4.19E-04	n/a	U
S09T001763			13967-70-9	Cesium-134	uCi/mL	n/a	<2.49E-05	<2.41E-05	n/a	n/a	n/a	n/a	2.41E-05	n/a	U
S09T001763			10045-97-3	Cesium-137	uCi/mL	103	<3.16E-05	<2.73E-05	n/a	n/a	n/a	n/a	2.73E-05	n/a	U
S09T001763			14762-78-8	Cerium-144	uCi/mL	n/a	<8.67E-05	<8.81E-05	n/a	n/a	n/a	n/a	8.81E-05	n/a	U

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**AW106 EVAP3**  
**Data Summary Report**

**Sample Group: 20090162**

**Riser: 014**

**Segment Number: 6AW-08-01FB2**

**Segment Portion: Field Blank**

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S09T001763			15585-10-1	Europium-154	uCi/mL	n/a	<7.62E-05	<7.37E-05	n/a	n/a	n/a	n/a	7.37E-05	n/a	U
S09T001763			14391-16-3	Europium-155	uCi/mL	n/a	<3.67E-05	<3.82E-05	n/a	n/a	n/a	n/a	3.82E-05	n/a	U
S09T001763			13982-63-3	Radium-226	uCi/mL	n/a	<3.81E-04	<3.72E-04	n/a	n/a	n/a	n/a	3.72E-04	n/a	U
S09T001763			15046-84-1	Iodine-129	uCi/mL	110	<2.16E-06	<1.25E-05	n/a	n/a	n/a	n/a	1.25E-05	n/a	U
S09T001763			13968-55-3	Uranium-233	ug/mL	n/a	1.50E-08	<1.00E-07	n/a	n/a	n/a	n/a	1.00E-07	n/a	U
S09T001763			15117-96-1	Uranium-235	ug/mL	96.8	1.10E-08	9.32E-07	n/a	n/a	n/a	n/a	1.10E-07	n/a	BJ
S09T001763			13994-20-2	Neptunium-237	ug/mL	105	<5.30E-08	<5.30E-07	n/a	n/a	n/a	n/a	5.30E-07	n/a	U
S09T001763			U-238	Uranium-238	ug/mL	99.7	<5.50E-07	1.32E-04	n/a	n/a	n/a	n/a	5.50E-06	n/a	
S09T001763			14133-76-7	Technetium-99	ug/mL	101	<3.00E-07	<3.00E-06	n/a	n/a	n/a	n/a	3.00E-06	n/a	U
S09T001763			13994-20-2	Neptunium-237	uCi/mL	101	1.47E-05	2.26E-05	n/a	n/a	n/a	n/a	1.43E-05	83	BJ
S09T001763			PU-239/240	Plutonium-239/240	uCi/mL	100	<1.98E-06	<1.80E-06	n/a	n/a	n/a	n/a	1.80E-06	n/a	U
S09T001763			13981-16-3	Plutonium-238	uCi/mL	n/a	<1.98E-06	<1.80E-06	n/a	n/a	n/a	n/a	1.80E-06	n/a	U
S09T001763			SR-89/90	Strontium-89/90	uCi/mL	96.5	1.41E-06	2.75E-06	n/a	n/a	n/a	n/a	1.05E-06	65.33	BJ
S09T001764	O		111-76-2	2-Butoxyethanol	ug/L	74.2	<30.3	<212	n/a	n/a	n/a	n/a	212	n/a	U
S09T001764	O		126-73-8	Tributyl phosphate	ug/L	79.8	<6.37	<44.6	n/a	n/a	n/a	n/a	44.6	n/a	U
S09T001765	O		12674-11-2	Aroclor 1016	ug/L	n/a	<5.40	<37.8	n/a	n/a	n/a	n/a	37.8	n/a	U
S09T001765	O		11104-28-2	Aroclor 1221	ug/L	n/a	<1.01	<7.10	n/a	n/a	n/a	n/a	7.10	n/a	U
S09T001765	O		11141-16-5	Aroclor 1232	ug/L	n/a	<1.17	<8.20	n/a	n/a	n/a	n/a	8.20	n/a	U
S09T001765	O		53469-21-9	Aroclor 1242	ug/L	n/a	<1.80	<12.6	n/a	n/a	n/a	n/a	12.6	n/a	U
S09T001765	O		12672-29-6	Aroclor 1248	ug/L	n/a	<1.01	<7.10	n/a	n/a	n/a	n/a	7.10	n/a	U
S09T001765	O		11097-69-1	Aroclor 1254	ug/L	77.7	<0.371	<2.60	n/a	n/a	n/a	n/a	2.60	n/a	U
S09T001765	O		11096-82-5	Aroclor 1260	ug/L	n/a	<4.09	<28.6	n/a	n/a	n/a	n/a	28.6	n/a	U
S09T001766	S		14798-03-9	Ammonium	ug/mL	96.8	1.75	<0.120	n/a	n/a	n/a	n/a	0.120	n/a	U

NA = Not Analyzed, ND = Not Detected

U - Less Than Detection Limit  
Q - Qualitative

B - Blank Contamination  
J - Estimated

b - MS/MSD Outside Range

e - SERDIL Outside Range

**AW106 EVAP3**  
**Data Summary Report**

**Sample Group: 20090162**

**Riser: 014**

**Segment Number: 6AW-08-01TB**

**Segment Portion: Trip Blank**

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S09T001767			VOL%SETS	Volume percent settled solids	%	n/a	n/a	0.0	n/a	n/a	n/a	n/a	n/a	n/a	Q
S09T001768			71-36-3	1-Butanol	ug/L	87.4	<7.77	<8.63	n/a	n/a	n/a	n/a	8.63	n/a	U
S09T001768			67-64-1	Acetone	ug/L	90.0	<2.19	<2.43	n/a	n/a	n/a	n/a	2.43	n/a	U
S09T001768			78-93-3	2-Butanone	ug/L	95.7	<1.33	<1.48	n/a	n/a	n/a	n/a	1.48	n/a	U
S09T001769	O		111-76-2	2-Butoxyethanol	ug/L	74.2	<30.3	<212	n/a	n/a	n/a	n/a	212	n/a	U
S09T001769	O		126-73-8	Tributyl phosphate	ug/L	79.8	<6.37	<44.6	n/a	n/a	n/a	n/a	44.6	n/a	U

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 Q - Qualitative

B - Blank Contamination  
 J - Estimated

b - MS/MSD Outside Range

e - SERDIL Outside Range

AW106 EVAP3  
Data Summary Report

Sample Group: 20090162

Riser: 014

Segment Number: 6AW-08-02A

Segment Portion: Grab Sample (Total)

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S09T001776			ORGVOL	Organic Volume Present	mL	n/a	n/a	0.0	n/a	n/a	n/a	n/a	n/a	n/a	Q
S09T001776			MASS	Mass	g	n/a	n/a	302	n/a	n/a	n/a	n/a	n/a	n/a	Q
S09T001776			VOL%SETS	Volume percent settled solids	%	n/a	n/a	0.0	n/a	n/a	n/a	n/a	n/a	n/a	Q
S09T001776				Volume of Sample	mL	n/a	n/a	250	n/a	n/a	n/a	n/a	n/a	n/a	Q
S09T001777			71-36-3	1-Butanol	ug/L	87.4	<7.77	7.56E+03	n/a	n/a	n/a	114	311	n/a	
S09T001777			67-64-1	Acetone	ug/L	90.0	<2.19	698	n/a	n/a	n/a	103	87.6	n/a	J
S09T001777			78-93-3	2-Butanone	ug/L	95.7	<1.33	<53.2	n/a	n/a	n/a	110	53.2	n/a	U

NA = Not Analyzed, ND = Not Detected

U - Less Than Detection Limit

B - Blank Contamination

b - MS/MSD Outside Range

e - SERDIL Outside Range

Q - Qualitative

J - Estimated

AW106 EVAP3  
Data Summary Report

Sample Group: 20090162

Riser: 014

Segment Number: 6AW-08-02B

Segment Portion: Grab Sample (Total)

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S09T001778			ORGVOL	Organic Volume Present	mL	n/a	n/a	0.0	n/a	n/a	n/a	n/a	n/a	n/a	Q
S09T001778			MASS	Mass	g	n/a	n/a	302	n/a	n/a	n/a	n/a	n/a	n/a	Q
S09T001778			VOL%SETS	Volume percent settled solids	%	n/a	n/a	0.0	n/a	n/a	n/a	n/a	n/a	n/a	Q
S09T001778				Volume of Sample	mL	n/a	n/a	250	n/a	n/a	n/a	n/a	n/a	n/a	Q
S09T001778			SPECGRAVI	Specific gravity	unitless	99.17	n/a	1.210	n/a	n/a	n/a	n/a	1.000E-03	n/a	
S09T001782			14762-75-5	Carbon-14	uCi/mL	94.6	<9.85E-07	1.06E-03	1.33E-03	1.20E-03	23.3	88.1	1.02E-06	0.7	
S09T001782			7439-97-6	Mercury	ug/mL	98.1	<1.00E-04	5.51E-03	n/a	n/a	n/a	n/a	1.00E-03	n/a	J
S09T001782			7440-22-4	Silver	ug/mL	97.8	<5.00E-03	<2.00	n/a	n/a	n/a	n/a	2.00	n/a	U
S09T001782			7429-90-5	Aluminum	ug/mL	99.6	<0.0300	6.47E+03	n/a	n/a	n/a	n/a	12.0	n/a	
S09T001782			7440-38-2	Arsenic	ug/mL	104	<0.0500	<20.0	n/a	n/a	n/a	n/a	20.0	n/a	U
S09T001782			7440-41-7	Beryllium	ug/mL	101	<1.00E-03	<0.400	n/a	n/a	n/a	n/a	0.400	n/a	U
S09T001782			7440-69-9	Bismuth	ug/mL	99.4	<0.100	<40.0	n/a	n/a	n/a	n/a	40.0	n/a	U
S09T001782			7440-70-2	Calcium	ug/mL	108	<0.0500	<20.0	n/a	n/a	n/a	n/a	20.0	n/a	U
S09T001782			7440-43-9	Cadmium	ug/mL	99.7	<5.00E-03	<2.00	n/a	n/a	n/a	n/a	2.00	n/a	U
S09T001782			7440-48-4	Cobalt	ug/mL	101	<0.0100	<4.00	n/a	n/a	n/a	n/a	4.00	n/a	U
S09T001782			7440-47-3	Chromium	ug/mL	99.4	<5.00E-03	603	n/a	n/a	n/a	n/a	2.00	n/a	
S09T001782			7439-89-6	Iron	ug/mL	101	0.0120	2.73	n/a	n/a	n/a	n/a	2.00	n/a	J
S09T001782			7440-09-7	Potassium	ug/mL	103	<0.500	1.50E+03	n/a	n/a	n/a	n/a	200	n/a	J
S09T001782			7439-91-0	Lanthanum	ug/mL	100	<3.00E-03	<1.20	n/a	n/a	n/a	n/a	1.20	n/a	U
S09T001782			7439-96-5	Manganese	ug/mL	97.9	<3.00E-03	<1.20	n/a	n/a	n/a	n/a	1.20	n/a	U
S09T001782			7440-23-5	Sodium	ug/mL	100	<0.100	9.10E+04	n/a	n/a	n/a	n/a	40.0	n/a	
S09T001782			7440-02-0	Nickel	ug/mL	98.6	0.0236	<8.00	n/a	n/a	n/a	n/a	8.00	n/a	U
S09T001782			7439-92-1	Lead	ug/mL	104	<0.0500	<20.0	n/a	n/a	n/a	n/a	20.0	n/a	U
S09T001782			7440-16-6	Rhodium	ug/mL	100	<0.0500	<20.0	n/a	n/a	n/a	n/a	20.0	n/a	U
S09T001782			7782-49-2	Selenium	ug/mL	103	<0.100	<40.0	n/a	n/a	n/a	n/a	40.0	n/a	U
S09T001782			7440-21-3	Silicon	ug/mL	96.1	<0.0300	12.6	n/a	n/a	n/a	n/a	12.0	n/a	J
S09T001782			7440-24-6	Strontium	ug/mL	101	<3.00E-03	<1.20	n/a	n/a	n/a	n/a	1.20	n/a	U
S09T001782			7440-61-1	Uranium	ug/mL	106	<0.100	<40.0	n/a	n/a	n/a	n/a	40.0	n/a	U

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U - Less Than Detection Limit  
Q - QualitativeB - Blank Contamination  
J - Estimated

b - MS/MSD Outside Range

e - SERDIL Outside Range

**AW106 EVAP3**  
**Data Summary Report**

**Sample Group: 20090162**

**Riser: 014**

**Segment Number: 6AW-08-02B**

**Segment Portion: Grab Sample (Total)**

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S09T001782			7440-33-7	Tungsten	ug/mL	105	<0.200	<80.0	n/a	n/a	n/a	n/a	80.0	n/a	U
S09T001782			7440-66-6	Zinc	ug/mL	97.2	<5.00E-03	<2.00	n/a	n/a	n/a	n/a	2.00	n/a	U
S09T001782			7440-67-7	Zirconium	ug/mL	97.8	<5.00E-03	<2.00	n/a	n/a	n/a	n/a	2.00	n/a	U
S09T001782			15758-45-9	Selenium-79	uCi/mL	n/a	8.04E-06	1.81E-04	1.91E-04	1.86E-04	5.08	n/a	1.58E-06	2.14	
S09T001782			10028-17-8	Tritium	uCi/mL	92.0	3.13E-06	3.16E-04	n/a	n/a	n/a	95.3	7.36E-07	1.9	
S09T001783			DSC-02	Exotherms - calculated dry weight	J/g DW	n/a	n/a	0.0	n/a	n/a	n/a	n/a	n/a	n/a	
S09T001783			DSC-01	DSC Exotherm	J/g	99.3	n/a	0.0	n/a	n/a	n/a	n/a	n/a	n/a	
S09T001783			16984-48-8	Fluoride	ug/mL	96.7	<1.61E-03	315	n/a	n/a	n/a	n/a	1.79	n/a	
S09T001783			16887-00-6	Chloride	ug/mL	99.0	<9.98E-03	1.51E+03	n/a	n/a	n/a	n/a	11.1	n/a	
S09T001783			14797-65-0	Nitrite	ug/mL	101	<0.0192	3.36E+04	n/a	n/a	n/a	n/a	196	n/a	
S09T001783			14808-79-8	Sulfate	ug/mL	99.7	<0.0187	6.41E+03	n/a	n/a	n/a	n/a	20.8	n/a	
S09T001783			14797-55-8	Nitrate	ug/mL	99.5	<0.0208	1.15E+05	n/a	n/a	n/a	n/a	212	n/a	
S09T001783			14265-44-2	Phosphate	ug/mL	98.0	<0.0167	2.51E+03	n/a	n/a	n/a	n/a	18.6	n/a	
S09T001783			PH	pH	unitless	n/a	n/a	13.4	n/a	n/a	n/a	n/a	0.0100	n/a	
S09T001783			%WATER	Percent water	%	98.0	n/a	71.3	n/a	n/a	n/a	n/a	0.0100	n/a	
S09T001783			TOC	Total organic carbon	ug/mL	91.8	<20.0	1.50E+03	n/a	n/a	n/a	n/a	100	n/a	
S09T001783			TIC	Total inorganic carbon	ug/mL	98.3	<7.00	5.14E+03	n/a	n/a	n/a	n/a	35.0	n/a	
S09T001783			TC	Total carbon	ug/mL	92.1	<1.00	7.80E+03	n/a	n/a	n/a	n/a	105	n/a	
S09T001783			TOC	Total organic carbon	ug/mL	105	1.00	1.96E+03	n/a	n/a	n/a	n/a	55.0	n/a	
S09T001784			12587-46-1	Gross alpha	uCi/mL	96.7	<4.77E-07	5.12E-03	n/a	n/a	n/a	n/a	3.07E-03	130.9	J
S09T001784			12587-47-2	Gross beta	uCi/mL	107	<7.87E-07	224	n/a	n/a	n/a	n/a	0.0124	.4	
S09T001784			CM-243/244	Curium-243/244	uCi/mL	n/a	<1.10E-06	<7.22E-06	<6.60E-06	n/a	n/a	n/a	7.22E-06	n/a	U
S09T001784			14596-10-2	Americium-241	uCi/mL	99.4	<2.75E-06	1.53E-04	1.51E-04	1.52E-04	1.07	105	1.80E-05	2.54	
S09T001784			10198-40-0	Cobalt-60	uCi/mL	102	<2.62E-05	<0.0105	n/a	n/a	n/a	n/a	0.0105	n/a	U
S09T001784			14681-63-1	Niobium-94	uCi/mL	n/a	<2.48E-05	<0.0110	n/a	n/a	n/a	n/a	0.0110	n/a	U
S09T001784			RU/RH-106	Ruthenium/Rhodium-106	uCi/mL	n/a	<3.94E-04	<1.44	n/a	n/a	n/a	n/a	1.44	n/a	U
S09T001784			13967-70-9	Cesium-134	uCi/mL	n/a	<2.49E-05	<0.0733	n/a	n/a	n/a	n/a	0.0733	n/a	U
S09T001784			10045-97-3	Cesium-137	uCi/mL	103	<3.16E-05	221	n/a	n/a	n/a	n/a	0.118	4.23	

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Q - Qualitative

B - Blank Contamination  
J - Estimated

b - MS/MSD Outside Range

e - SERDIL Outside Range

**AW106 EVAP3**  
**Data Summary Report**

Sample Group: 20090162

Riser: 014

Segment Number: 6AW-08-02B

Segment Portion: Grab Sample (Total)

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S09T001784			14762-78-8	Cerium-144	uCi/mL	n/a	<8.67E-05	<0.426	n/a	n/a	n/a	n/a	0.426	n/a	U
S09T001784			15585-10-1	Europium-154	uCi/mL	n/a	<7.62E-05	<0.0325	n/a	n/a	n/a	n/a	0.0325	n/a	U
S09T001784			14391-16-3	Europium-155	uCi/mL	n/a	<3.67E-05	<0.185	n/a	n/a	n/a	n/a	0.185	n/a	U
S09T001784			13982-63-3	Radium-226	uCi/mL	n/a	<3.81E-04	<2.11	n/a	n/a	n/a	n/a	2.11	n/a	U
S09T001784			15046-84-1	Iodine-129	uCi/mL	110	<2.16E-06	8.32E-05	n/a	n/a	n/a	n/a	2.42E-06	4.4	
S09T001784			13968-55-3	Uranium-233	ug/mL	n/a	1.50E-08	1.12E-03	n/a	n/a	n/a	n/a	5.00E-04	n/a	BJ
S09T001784			15117-96-1	Uranium-235	ug/mL	96.8	1.10E-08	0.129	n/a	n/a	n/a	n/a	5.50E-04	n/a	B
S09T001784			13994-20-2	Neptunium-237	ug/mL	105	<5.30E-08	0.117	n/a	n/a	n/a	n/a	2.65E-03	n/a	
S09T001784			U-238	Uranium-238	ug/mL	99.7	<5.50E-07	18.2	n/a	n/a	n/a	n/a	0.0275	n/a	
S09T001784			14133-76-7	Techneium-99	ug/mL	102	5.46E-07	5.22	5.08	5.15	2.64	104	3.00E-03	n/a	
S09T001784			13994-20-2	Neptunium-237	uCi/mL	101	1.47E-05	9.18E-05	n/a	n/a	n/a	83.2	1.43E-05	25.4	B
S09T001784			HYDROXID	Hydroxide	ug/mL	97	<42	8.4E+03	8.0E+03	8.2E+03	4.96	95	2.5E+03	n/a	
S09T001784			PU-239/240	Plutonium-239/240	uCi/mL	100	<1.98E-06	1.16E-03	1.18E-03	1.17E-03	1.54	107	6.20E-05	2.09	
S09T001784			13981-16-3	Plutonium-238	uCi/mL	n/a	<1.98E-06	1.44E-04	1.46E-04	1.45E-04	1.05	n/a	6.20E-05	3.77	
S09T001784			SR-89/90	Strontium-89/90	uCi/mL	96.5	1.41E-06	1.20	n/a	n/a	n/a	n/a	1.04E-04	0.51	
S09T001785	O		111-76-2	2-Butoxyethanol	ug/L	74.2	<30.3	<212	n/a	n/a	n/a	n/a	212	n/a	U
S09T001785	O		126-73-8	Tributyl phosphate	ug/L	79.8	<6.37	182	n/a	n/a	n/a	n/a	44.6	n/a	J
S09T001786	O		12674-11-2	Aroclor 1016	ug/L	n/a	<5.40	<37.8	n/a	n/a	n/a	n/a	37.8	n/a	U
S09T001786	O		11104-28-2	Aroclor 1221	ug/L	n/a	<1.01	<7.10	n/a	n/a	n/a	n/a	7.10	n/a	U
S09T001786	O		11141-16-5	Aroclor 1232	ug/L	n/a	<1.17	<8.20	n/a	n/a	n/a	n/a	8.20	n/a	U
S09T001786	O		53469-21-9	Aroclor 1242	ug/L	n/a	<1.80	<12.6	n/a	n/a	n/a	n/a	12.6	n/a	U
S09T001786	O		12672-29-6	Aroclor 1248	ug/L	n/a	<1.01	<7.10	n/a	n/a	n/a	n/a	7.10	n/a	U
S09T001786	O		11097-69-1	Aroclor 1254	ug/L	77.7	<0.371	<2.60	n/a	n/a	n/a	n/a	2.60	n/a	U
S09T001786	O		11096-82-5	Aroclor 1260	ug/L	n/a	<4.09	<28.6	n/a	n/a	n/a	n/a	28.6	n/a	U
S09T001787	S		14798-03-9	Ammonium	ug/mL	96.8	1.75	83.4	n/a	n/a	n/a	n/a	0.120	n/a	

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b - MS/MSD Outside Range

e - SERDIL Outside Range

Q - Qualitative

J - Estimated

**AW106 EVAP3**  
**Data Summary Report**

**Sample Group: 20090162**

**Riser: 014**

**Segment Number: 6AW-08-03A**

**Segment Portion: Grab Sample (Total)**

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S09T001788			ORGVOL	Organic Volume Present	mL	n/a	n/a	0.0	n/a	n/a	n/a	n/a	n/a	n/a	Q
S09T001788			MASS	Mass	g	n/a	n/a	301	n/a	n/a	n/a	n/a	n/a	n/a	Q
S09T001788			VOL%SETS	Volume percent settled solids	%	n/a	n/a	0.0	n/a	n/a	n/a	n/a	n/a	n/a	Q
S09T001788				Volume of Sample	mL	n/a	n/a	250	n/a	n/a	n/a	n/a	n/a	n/a	Q
S09T001789			71-36-3	1-Butanol	ug/L	87.4	<7.77	6.78E+03	n/a	n/a	n/a	n/a	311	n/a	
S09T001789			67-64-1	Acetone	ug/L	90.0	<2.19	668	n/a	n/a	n/a	n/a	87.6	n/a	J
S09T001789			78-93-3	2-Butanone	ug/L	95.7	<1.33	<53.2	n/a	n/a	n/a	n/a	53.2	n/a	U

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b - MS/MSD Outside Range

e - SERDIL Outside Range

Q - Qualitative

J - Estimated



AW106 EVAP3  
Data Summary Report

Sample Group: 20090162

Riser: 014

Segment Number: 6AW-08-03B

Segment Portion: Grab Sample (Total)

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S09T001790			ORGVOL	Organic Volume Present	mL	n/a	n/a	0.0	n/a	n/a	n/a	n/a	n/a	n/a	Q
S09T001790			MASS	Mass	g	n/a	n/a	302	n/a	n/a	n/a	n/a	n/a	n/a	Q
S09T001790			VOL%SETS	Volume percent settled solids	%	n/a	n/a	0.0	n/a	n/a	n/a	n/a	n/a	n/a	Q
S09T001790				Volume of Sample	mL	n/a	n/a	250	n/a	n/a	n/a	n/a	n/a	n/a	Q
S09T001790			SPECGRAVI	Specific gravity	unitless	99.17	n/a	1.218	n/a	n/a	n/a	n/a	1.000E-03	n/a	
S09T001794			14762-75-5	Carbon-14	uCi/mL	94.6	<9.85E-07	1.26E-03	n/a	n/a	n/a	n/a	1.01E-06	0.6	
S09T001794			7439-97-6	Mercury	ug/mL	98.1	<1.00E-04	4.76E-03	4.58E-03	4.67E-03	3.85	56.4	1.00E-03	n/a	Jb
S09T001794			7440-22-4	Silver	ug/mL	97.8	<5.00E-03	<2.00	n/a	n/a	n/a	n/a	2.00	n/a	U
S09T001794			7429-90-5	Aluminum	ug/mL	99.6	<0.0300	6.51E+03	n/a	n/a	n/a	n/a	12.0	n/a	
S09T001794			7440-38-2	Arsenic	ug/mL	104	<0.0500	<20.0	n/a	n/a	n/a	n/a	20.0	n/a	U
S09T001794			7440-41-7	Beryllium	ug/mL	101	<1.00E-03	<0.400	n/a	n/a	n/a	n/a	0.400	n/a	U
S09T001794			7440-69-9	Bismuth	ug/mL	99.4	<0.100	<40.0	n/a	n/a	n/a	n/a	40.0	n/a	U
S09T001794			7440-70-2	Calcium	ug/mL	108	<0.0500	<20.0	n/a	n/a	n/a	n/a	20.0	n/a	U
S09T001794			7440-43-9	Cadmium	ug/mL	99.7	<5.00E-03	<2.00	n/a	n/a	n/a	n/a	2.00	n/a	U
S09T001794			7440-48-4	Cobalt	ug/mL	101	<0.0100	<4.00	n/a	n/a	n/a	n/a	4.00	n/a	U
S09T001794			7440-47-3	Chromium	ug/mL	99.4	<5.00E-03	611	n/a	n/a	n/a	n/a	2.00	n/a	
S09T001794			7439-89-6	Iron	ug/mL	101	0.0120	2.22	n/a	n/a	n/a	n/a	2.00	n/a	J
S09T001794			7440-09-7	Potassium	ug/mL	103	<0.500	1.59E+03	n/a	n/a	n/a	n/a	200	n/a	J
S09T001794			7439-91-0	Lanthanum	ug/mL	100	<3.00E-03	<1.20	n/a	n/a	n/a	n/a	1.20	n/a	U
S09T001794			7439-96-5	Manganese	ug/mL	97.9	<3.00E-03	<1.20	n/a	n/a	n/a	n/a	1.20	n/a	U
S09T001794			7440-23-5	Sodium	ug/mL	100	<0.100	9.09E+04	n/a	n/a	n/a	n/a	40.0	n/a	
S09T001794			7440-02-0	Nickel	ug/mL	98.6	0.0236	8.99	n/a	n/a	n/a	n/a	8.00	n/a	J
S09T001794			7439-92-1	Lead	ug/mL	104	<0.0500	<20.0	n/a	n/a	n/a	n/a	20.0	n/a	U
S09T001794			7440-16-6	Rhodium	ug/mL	100	<0.0500	<20.0	n/a	n/a	n/a	n/a	20.0	n/a	U
S09T001794			7782-49-2	Selenium	ug/mL	103	<0.100	<40.0	n/a	n/a	n/a	n/a	40.0	n/a	U
S09T001794			7440-21-3	Silicon	ug/mL	96.1	<0.0300	12.8	n/a	n/a	n/a	n/a	12.0	n/a	J
S09T001794			7440-24-6	Strontium	ug/mL	101	<3.00E-03	<1.20	n/a	n/a	n/a	n/a	1.20	n/a	U
S09T001794			7440-61-1	Uranium	ug/mL	106	<0.100	<40.0	n/a	n/a	n/a	n/a	40.0	n/a	U

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b - MS/MSD Outside Range

e - SERDIL Outside Range

Q - Qualitative

J - Estimated

AW106 EVAP3  
Data Summary Report

Sample Group: 20090162

Riser: 014

Segment Number: 6AW-08-03B

Segment Portion: Grab Sample (Total)

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S09T001794			7440-33-7	Tungsten	ug/mL	105	<0.200	<80.0	n/a	n/a	n/a	n/a	80.0	n/a	U
S09T001794			7440-66-6	Zinc	ug/mL	97.2	<5.00E-03	<2.00	n/a	n/a	n/a	n/a	2.00	n/a	U
S09T001794			7440-67-7	Zirconium	ug/mL	97.8	<5.00E-03	<2.00	n/a	n/a	n/a	n/a	2.00	n/a	U
S09T001794			15758-45-9	Selenium-79	uCi/mL	n/a	8.04E-06	1.77E-04	n/a	n/a	n/a	n/a	1.69E-06	2.27	
S09T001794			10028-17-8	Tritium	uCi/mL	92.0	3.13E-06	3.19E-04	n/a	n/a	n/a	n/a	7.31E-07	1.8	
S09T001795			DSC-02	Exotherms - calculated dry weight	J/g DW	n/a	n/a	0.0	n/a	n/a	n/a	n/a	n/a	n/a	
S09T001795			DSC-01	DSC Exotherm	J/g	96.4	n/a	0.0	0.0	0.0	0.0	n/a	n/a	n/a	
S09T001795			16984-48-8	Fluoride	ug/mL	96.7	<1.61E-03	364	n/a	n/a	n/a	n/a	1.79	n/a	
S09T001795			16887-00-6	Chloride	ug/mL	99.0	<9.98E-03	1.72E+03	n/a	n/a	n/a	n/a	11.1	n/a	
S09T001795			14797-65-0	Nitrite	ug/mL	97.2	<0.0192	3.15E+04	n/a	n/a	n/a	n/a	196	n/a	
S09T001795			14808-79-8	Sulfate	ug/mL	99.7	<0.0187	7.31E+03	n/a	n/a	n/a	n/a	20.8	n/a	
S09T001795			14797-55-8	Nitrate	ug/mL	96.1	<0.0208	1.08E+05	n/a	n/a	n/a	n/a	212	n/a	
S09T001795			14265-44-2	Phosphate	ug/mL	98.0	<0.0167	2.87E+03	n/a	n/a	n/a	n/a	18.6	n/a	
S09T001795			PH	pH	unitless	n/a	n/a	>13.500	n/a	n/a	n/a	n/a	0.0100	n/a	J
S09T001795			%WATER	Percent water	%	98.0	n/a	71.5	71.6	71.6	0.112	n/a	0.0100	n/a	
S09T001795			TOC	Total organic carbon	ug/mL	91.8	<20.0	1.51E+03	n/a	n/a	n/a	n/a	100	n/a	
S09T001795			TIC	Total inorganic carbon	ug/mL	98.3	<7.00	5.16E+03	n/a	n/a	n/a	n/a	35.0	n/a	
S09T001795			TC	Total carbon	ug/mL	92.1	<1.00	7.23E+03	n/a	n/a	n/a	n/a	105	n/a	
S09T001795			TOC	Total organic carbon	ug/mL	105	1.00	2.06E+03	n/a	n/a	n/a	n/a	55.0	n/a	
S09T001796			12587-46-1	Gross alpha	uCi/mL	96.7	<4.77E-07	6.22E-03	<6.63E-03	n/a	n/a	101	3.07E-03	104.8	J
S09T001796			12587-47-2	Gross beta	uCi/mL	107	<7.87E-07	219	220	220	0.456	113	0.0124	.4	
S09T001796			CM-243/244	Curium-243/244	uCi/mL	n/a	<1.10E-06	<6.82E-06	n/a	n/a	n/a	n/a	6.82E-06	n/a	U
S09T001796			14596-10-2	Americium-241	uCi/mL	99.4	<2.75E-06	1.52E-04	n/a	n/a	n/a	n/a	1.70E-05	2.74	
S09T001796			10198-40-0	Cobalt-60	uCi/mL	102	<2.62E-05	<0.0109	n/a	n/a	n/a	n/a	0.0109	n/a	U
S09T001796			14681-63-1	Niobium-94	uCi/mL	n/a	<2.48E-05	<0.0114	n/a	n/a	n/a	n/a	0.0114	n/a	U
S09T001796			RU/RH-106	Ruthenium/Rhodium-106	uCi/mL	n/a	<3.94E-04	<1.42	n/a	n/a	n/a	n/a	1.42	n/a	U
S09T001796			13967-70-9	Cesium-134	uCi/mL	n/a	<2.49E-05	<0.0721	n/a	n/a	n/a	n/a	0.0721	n/a	U
S09T001796			10045-97-3	Cesium-137	uCi/mL	103	<3.16E-05	216	n/a	n/a	n/a	n/a	0.116	4.23	

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AW106 EVAP3  
Data Summary Report

Sample Group: 20090162

Riser: 014

Segment Number: 6AW-08-03B

Segment Portion: Grab Sample (Total)

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S09T001796			14762-78-8	Cerium-144	uCi/mL	n/a	<8.67E-05	<0.421	n/a	n/a	n/a	n/a	0.421	n/a	U
S09T001796			15585-10-1	Europium-154	uCi/mL	n/a	<7.62E-05	<0.0296	n/a	n/a	n/a	n/a	0.0296	n/a	U
S09T001796			14391-16-3	Europium-155	uCi/mL	n/a	<3.67E-05	<0.183	n/a	n/a	n/a	n/a	0.183	n/a	U
S09T001796			13982-63-3	Radium-226	uCi/mL	n/a	<3.81E-04	<2.09	n/a	n/a	n/a	n/a	2.09	n/a	U
S09T001796			15046-84-1	Iodine-129	uCi/mL	110	<2.16E-06	9.23E-05	n/a	n/a	n/a	109	2.96E-06	4.5	
S09T001796			13968-55-3	Uranium-233	ug/mL	n/a	1.50E-08	9.68E-04	1.22E-03	1.09E-03	22.8	n/a	5.00E-04	n/a	BJ
S09T001796			15117-96-1	Uranium-235	ug/mL	96.8	1.10E-08	0.122	0.126	0.124	3.06	104	5.50E-04	n/a	B
S09T001796			13994-20-2	Neptunium-237	ug/mL	105	<5.30E-08	0.130	0.118	0.124	10.1	104	2.65E-03	n/a	
S09T001796			U-238	Uranium-238	ug/mL	99.7	<5.50E-07	18.3	18.3	18.3	0.109	99.4	0.0275	n/a	
S09T001796			14133-76-7	Technetium-99	ug/mL	102	5.46E-07	5.26	n/a	n/a	n/a	n/a	3.00E-03	n/a	
S09T001796			13994-20-2	Neptunium-237	uCi/mL	101	1.47E-05	9.83E-05	n/a	n/a	n/a	n/a	1.43E-05	24.1	B
S09T001796			HYDROXID	Hydroxide	ug/mL	95	<42	8.0E+03	8.0E+03	8.0E+03	0.752	96	2.5E+03	n/a	
S09T001796			PU-239/240	Plutonium-239/240	uCi/mL	100	<1.98E-06	1.15E-03	n/a	n/a	n/a	n/a	7.35E-05	2.16	
S09T001796			13981-16-3	Plutonium-238	uCi/mL	n/a	<1.98E-06	1.42E-04	n/a	n/a	n/a	n/a	7.35E-05	3.88	
S09T001796			SR-89/90	Strontium-89/90	uCi/mL	96.5	1.41E-06	1.19	n/a	n/a	n/a	n/a	1.06E-04	0.52	
S09T001797	O		111-76-2	2-Butoxyethanol	ug/L	74.2	<30.3	<212	n/a	n/a	n/a	81.1	212	n/a	U
S09T001797	O		126-73-8	Tributyl phosphate	ug/L	79.8	<6.37	201	n/a	n/a	n/a	74.0	44.6	n/a	J
S09T001798	O		12674-11-2	Aroclor 1016	ug/L	n/a	<5.40	<37.8	n/a	n/a	n/a	n/a	37.8	n/a	U
S09T001798	O		11104-28-2	Aroclor 1221	ug/L	n/a	<1.01	<7.10	n/a	n/a	n/a	n/a	7.10	n/a	U
S09T001798	O		11141-16-5	Aroclor 1232	ug/L	n/a	<1.17	<8.20	n/a	n/a	n/a	n/a	8.20	n/a	U
S09T001798	O		53469-21-9	Aroclor 1242	ug/L	n/a	<1.80	<12.6	n/a	n/a	n/a	n/a	12.6	n/a	U
S09T001798	O		12672-29-6	Aroclor 1248	ug/L	n/a	<1.01	<7.10	n/a	n/a	n/a	n/a	7.10	n/a	U
S09T001798	O		11097-69-1	Aroclor 1254	ug/L	77.7	<0.371	<2.60	n/a	n/a	n/a	n/a	2.60	n/a	U
S09T001798	O		11096-82-5	Aroclor 1260	ug/L	n/a	<4.09	<28.6	n/a	n/a	n/a	n/a	28.6	n/a	U
S09T001799	S		14798-03-9	Ammonium	ug/mL	96.8	1.75	84.6	83.3	84.0	1.62	82.9	0.120	n/a	

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AW106 EVAP3  
Data Summary Report

Sample Group: 20090163

Riser: 019

Segment Number: 6AW-08-04B

Segment Portion: Grab Sample (Total)

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S09T001801			71-36-3	1-Butanol	ug/L	100	<7.77	6.37E+03	n/a	n/a	n/a	n/a	311	n/a	
S09T001801			67-64-1	Acetone	ug/L	97.5	<2.19	666	n/a	n/a	n/a	n/a	87.6	n/a	J
S09T001801			78-93-3	2-Butanone	ug/L	103	<1.33	<53.2	n/a	n/a	n/a	n/a	53.2	n/a	U
S09T001802			ORGVOL	Organic Volume Present	mL	n/a	n/a	0.0	n/a	n/a	n/a	n/a	n/a	n/a	Q
S09T001802			MASS	Mass	g	n/a	n/a	304	n/a	n/a	n/a	n/a	n/a	n/a	Q
S09T001802			VOL%SETS	Volume percent settled solids	%	n/a	n/a	0.0	n/a	n/a	n/a	n/a	n/a	n/a	Q
S09T001802				Volume of Sample	mL	n/a	n/a	250	n/a	n/a	n/a	n/a	n/a	n/a	Q
S09T001802			SPECGRAVI	Specific gravity	unitless	99.17	n/a	1.220	n/a	n/a	n/a	n/a	1.000E-03	n/a	
S09T001806			14762-75-5	Carbon-14	uCi/mL	94.6	<9.85E-07	1.36E-03	n/a	n/a	n/a	n/a	1.01E-06	0.6	
S09T001806			7439-97-6	Mercury	ug/mL	98.1	<1.00E-04	4.82E-03	n/a	n/a	n/a	n/a	1.00E-03	n/a	J
S09T001806			7440-22-4	Silver	ug/mL	97.8	<5.00E-03	<2.00	n/a	n/a	n/a	n/a	2.00	n/a	U
S09T001806			7429-90-5	Aluminum	ug/mL	99.6	<0.0300	6.53E+03	n/a	n/a	n/a	n/a	12.0	n/a	
S09T001806			7440-38-2	Arsenic	ug/mL	104	<0.0500	<20.0	n/a	n/a	n/a	n/a	20.0	n/a	U
S09T001806			7440-41-7	Beryllium	ug/mL	101	<1.00E-03	<0.400	n/a	n/a	n/a	n/a	0.400	n/a	U
S09T001806			7440-69-9	Bismuth	ug/mL	99.4	<0.100	<40.0	n/a	n/a	n/a	n/a	40.0	n/a	U
S09T001806			7440-70-2	Calcium	ug/mL	108	<0.0500	<20.0	n/a	n/a	n/a	n/a	20.0	n/a	U
S09T001806			7440-43-9	Cadmium	ug/mL	99.7	<5.00E-03	<2.00	n/a	n/a	n/a	n/a	2.00	n/a	U
S09T001806			7440-48-4	Cobalt	ug/mL	101	<0.0100	<4.00	n/a	n/a	n/a	n/a	4.00	n/a	U
S09T001806			7440-47-3	Chromium	ug/mL	99.4	<5.00E-03	614	n/a	n/a	n/a	n/a	2.00	n/a	
S09T001806			7439-89-6	Iron	ug/mL	101	0.0120	2.42	n/a	n/a	n/a	n/a	2.00	n/a	J
S09T001806			7440-09-7	Potassium	ug/mL	103	<0.500	1.53E+03	n/a	n/a	n/a	n/a	200	n/a	J
S09T001806			7439-91-0	Lanthanum	ug/mL	100	<3.00E-03	<1.20	n/a	n/a	n/a	n/a	1.20	n/a	U
S09T001806			7439-96-5	Manganese	ug/mL	97.9	<3.00E-03	<1.20	n/a	n/a	n/a	n/a	1.20	n/a	U
S09T001806			7440-23-5	Sodium	ug/mL	100	<0.100	9.09E+04	n/a	n/a	n/a	n/a	40.0	n/a	
S09T001806			7440-02-0	Nickel	ug/mL	98.6	0.0236	13.1	n/a	n/a	n/a	n/a	8.00	n/a	J
S09T001806			7439-92-1	Lead	ug/mL	104	<0.0500	<20.0	n/a	n/a	n/a	n/a	20.0	n/a	U
S09T001806			7440-16-6	Rhodium	ug/mL	100	<0.0500	<20.0	n/a	n/a	n/a	n/a	20.0	n/a	U
S09T001806			7782-49-2	Selenium	ug/mL	103	<0.100	<40.0	n/a	n/a	n/a	n/a	40.0	n/a	U

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AW106 EVAP3  
Data Summary Report

Sample Group: 20090163

Riser: 019

Segment Number: 6AW-08-04B

Segment Portion: Grab Sample (Total)

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S09T001806			7440-21-3	Silicon	ug/mL	96.1	<0.0300	<12.0	n/a	n/a	n/a	n/a	12.0	n/a	U
S09T001806			7440-24-6	Strontium	ug/mL	101	<3.00E-03	<1.20	n/a	n/a	n/a	n/a	1.20	n/a	U
S09T001806			7440-61-1	Uranium	ug/mL	106	<0.100	<40.0	n/a	n/a	n/a	n/a	40.0	n/a	U
S09T001806			7440-33-7	Tungsten	ug/mL	105	<0.200	<80.0	n/a	n/a	n/a	n/a	80.0	n/a	U
S09T001806			7440-66-6	Zinc	ug/mL	97.2	<5.00E-03	<2.00	n/a	n/a	n/a	n/a	2.00	n/a	U
S09T001806			7440-67-7	Zirconium	ug/mL	97.8	<5.00E-03	<2.00	n/a	n/a	n/a	n/a	2.00	n/a	U
S09T001806			15758-45-9	Selenium-79	uCi/mL	n/a	8.04E-06	1.65E-04	n/a	n/a	n/a	n/a	1.60E-06	2.37	
S09T001806			10028-17-8	Tritium	uCi/mL	92.0	3.13E-06	3.18E-04	n/a	n/a	n/a	n/a	7.26E-07	1.8	
S09T001807			DSC-02	Exotherms - calculated dry weight	J/g DW	n/a	n/a	0.0	n/a	n/a	n/a	n/a	n/a	n/a	
S09T001807			DSC-01	DSC Exotherm	J/g	99.3	n/a	0.0	n/a	n/a	n/a	n/a	n/a	n/a	
S09T001807			16984-48-8	Fluoride	ug/mL	99.9	<1.61E-03	387	385	386	0.513	103	1.79	n/a	
S09T001807			16887-00-6	Chloride	ug/mL	102	<9.98E-03	1.85E+03	1.83E+03	1.84E+03	0.990	101	11.1	n/a	
S09T001807			14797-65-0	Nitrite	ug/mL	101	<0.0192	3.39E+04	3.36E+04	3.37E+04	0.982	99.8	196	n/a	
S09T001807			14808-79-8	Sulfate	ug/mL	103	<0.0187	7.84E+03	7.75E+03	7.79E+03	1.04	101	20.8	n/a	
S09T001807			14797-55-8	Nitrate	ug/mL	99.4	<0.0208	1.16E+05	1.15E+05	1.15E+05	1.10	96.1	212	n/a	
S09T001807			14265-44-2	Phosphate	ug/mL	102	<0.0167	3.09E+03	3.06E+03	3.08E+03	0.767	102	18.6	n/a	
S09T001807			PH	pH	unitless	n/a	n/a	13.4	13.5	13.5	0.0743	n/a	0.0100	n/a	
S09T001807			%WATER	Percent water	%	98.7	n/a	68.9	n/a	n/a	n/a	n/a	0.0100	n/a	
S09T001807			TOC	Total organic carbon	ug/mL	91.8	<20.0	1.52E+03	n/a	n/a	n/a	n/a	100	n/a	
S09T001807			TIC	Total inorganic carbon	ug/mL	98.3	<7.00	5.20E+03	n/a	n/a	n/a	n/a	35.0	n/a	
S09T001807			TC	Total carbon	ug/mL	92.1	<1.00	6.98E+03	n/a	n/a	n/a	n/a	105	n/a	
S09T001807			TOC	Total organic carbon	ug/mL	105	1.00	2.00E+03	n/a	n/a	n/a	n/a	55.0	n/a	
S09T001808			12587-46-1	Gross alpha	uCi/mL	96.7	<4.77E-07	0.0203	n/a	n/a	n/a	n/a	3.07E-03	82.6	J
S09T001808			12587-47-2	Gross beta	uCi/mL	107	<7.87E-07	220	n/a	n/a	n/a	n/a	0.0124	.4	
S09T001808			CM-243/244	Curium-243/244	uCi/mL	n/a	<1.10E-06	<7.18E-06	n/a	n/a	n/a	n/a	7.18E-06	n/a	U
S09T001808			14596-10-2	Americium-241	uCi/mL	99.4	<2.75E-06	1.53E-04	n/a	n/a	n/a	n/a	1.80E-05	2.77	
S09T001808			10198-40-0	Cobalt-60	uCi/mL	102	<2.62E-05	<0.0105	<0.0112	n/a	n/a	n/a	0.0105	n/a	U
S09T001808			14681-63-1	Niobium-94	uCi/mL	n/a	<2.48E-05	<0.0113	<0.0107	n/a	n/a	n/a	0.0113	n/a	U

NA = Not Analyzed, ND = Not Detected

U - Less Than Detection Limit

B - Blank Contamination

b - MS/MSD Outside Range

e - SERDIL Outside Range

Q - Qualitative

J - Estimated

AW106 EVAP3  
Data Summary Report

Sample Group: 20090163

Riser: 019

Segment Number: 6AW-08-04B

Segment Portion: Grab Sample (Total)

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S09T001808			RU/RH-106	Ruthenium/Rhodium-106	uCi/mL	n/a	<3.94E-04	<1.41	<1.42	n/a	n/a	n/a	1.41	n/a	U
S09T001808			13967-70-9	Cesium-134	uCi/mL	n/a	<2.49E-05	<0.0715	<0.0729	n/a	n/a	n/a	0.0715	n/a	U
S09T001808			10045-97-3	Cesium-137	uCi/mL	103	<3.16E-05	215	219	217	1.84	n/a	0.108	4.23	
S09T001808			14762-78-8	Cerium-144	uCi/mL	n/a	<8.67E-05	<0.419	<0.423	n/a	n/a	n/a	0.419	n/a	U
S09T001808			15585-10-1	Europium-154	uCi/mL	n/a	<7.62E-05	<0.0300	<0.0327	n/a	n/a	n/a	0.0300	n/a	U
S09T001808			14391-16-3	Europium-155	uCi/mL	n/a	<3.67E-05	<0.183	<0.184	n/a	n/a	n/a	0.183	n/a	U
S09T001808			13982-63-3	Radium-226	uCi/mL	n/a	<3.81E-04	<2.09	<2.11	n/a	n/a	n/a	2.09	n/a	U
S09T001808			15046-84-1	Iodine-129	uCi/mL	110	<2.16E-06	8.06E-05	n/a	n/a	n/a	n/a	2.10E-06	4.5	
S09T001808			13968-55-3	Uranium-233	ug/mL	n/a	1.50E-08	5.32E-04	n/a	n/a	n/a	n/a	5.00E-04	n/a	BJ
S09T001808			15117-96-1	Uranium-235	ug/mL	96.8	1.10E-08	0.132	n/a	n/a	n/a	n/a	5.50E-04	n/a	B
S09T001808			13994-20-2	Neptunium-237	ug/mL	105	<5.30E-08	0.110	n/a	n/a	n/a	n/a	2.65E-03	n/a	
S09T001808			U-238	Uranium-238	ug/mL	99.7	<5.50E-07	18.1	n/a	n/a	n/a	n/a	0.0275	n/a	
S09T001808			14133-76-7	Technetium-99	ug/mL	102	5.46E-07	5.18	n/a	n/a	n/a	n/a	3.00E-03	n/a	
S09T001808			13994-20-2	Neptunium-237	uCi/mL	101	1.47E-05	7.67E-05	n/a	n/a	n/a	n/a	1.43E-05	29.2	B
S09T001808			HYDROXID	Hydroxide	ug/mL	93	<42	7.9E+03	7.9E+03	7.9E+03	1.03	100	2.5E+03	n/a	
S09T001808			PU-239/240	Plutonium-239/240	uCi/mL	100	<1.98E-06	1.14E-03	n/a	n/a	n/a	n/a	7.05E-05	2.13	
S09T001808			13981-16-3	Plutonium-238	uCi/mL	n/a	<1.98E-06	1.47E-04	n/a	n/a	n/a	n/a	7.05E-05	3.79	
S09T001808			SR-89/90	Strontium-89/90	uCi/mL	96.5	1.41E-06	1.19	1.19	1.19	0.320	n/a	1.04E-04	0.52	
S09T001809	O		111-76-2	2-Butoxyethanol	ug/L	74.2	<30.3	<212	n/a	n/a	n/a	n/a	212	n/a	U
S09T001809	O		126-73-8	Tributyl phosphate	ug/L	79.8	<6.37	241	n/a	n/a	n/a	n/a	44.6	n/a	J
S09T001810	O		12674-11-2	Aroclor 1016	ug/L	n/a	<5.40	<37.8	n/a	n/a	n/a	n/a	37.8	n/a	U
S09T001810	O		11104-28-2	Aroclor 1221	ug/L	n/a	<1.01	<7.10	n/a	n/a	n/a	n/a	7.10	n/a	U
S09T001810	O		11141-16-5	Aroclor 1232	ug/L	n/a	<1.17	<8.20	n/a	n/a	n/a	n/a	8.20	n/a	U
S09T001810	O		53469-21-9	Aroclor 1242	ug/L	n/a	<1.80	<12.6	n/a	n/a	n/a	n/a	12.6	n/a	U
S09T001810	O		12672-29-6	Aroclor 1248	ug/L	n/a	<1.01	<7.10	n/a	n/a	n/a	n/a	7.10	n/a	U
S09T001810	O		11097-69-1	Aroclor 1254	ug/L	77.7	<0.371	<2.60	n/a	n/a	n/a	n/a	2.60	n/a	U
S09T001810	O		11096-82-5	Aroclor 1260	ug/L	n/a	<4.09	<28.6	n/a	n/a	n/a	n/a	28.6	n/a	U
S09T001811	S		14798-03-9	Ammonium	ug/mL	96.8	1.75	84.4	n/a	n/a	n/a	n/a	0.120	n/a	

NA = Not Analyzed, ND = Not Detected

U - Less Than Detection Limit

B - Blank Contamination

b - MS/MSD Outside Range

e - SERDIL Outside Range

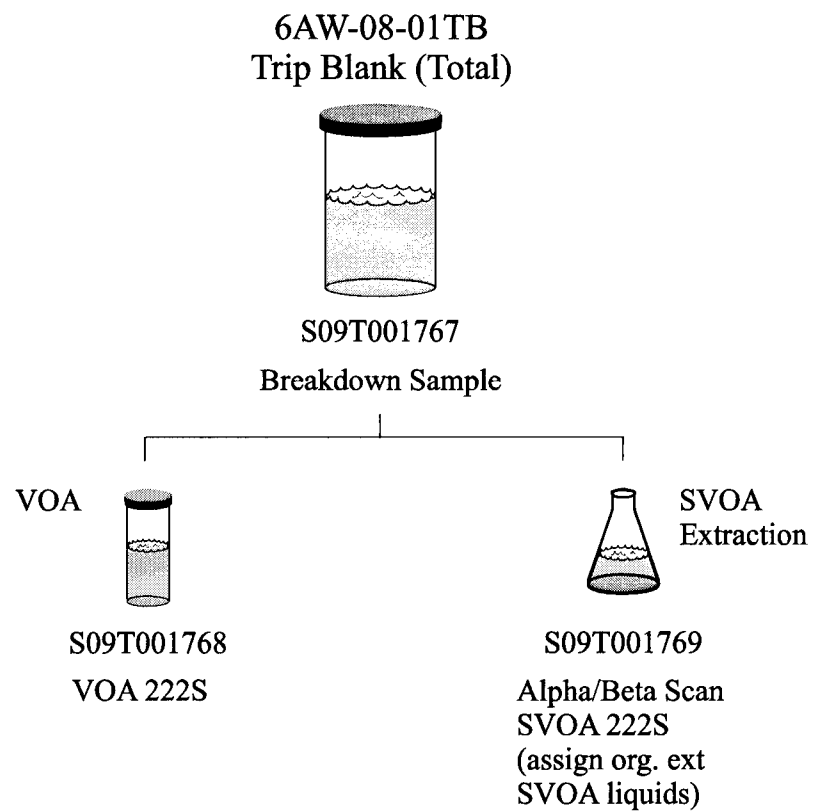
Q - Qualitative

J - Estimated

Attachment 2

SAMPLE BREAKDOWN DIAGRAMS

**AW106 EVAP3**  
**Grab Samples**  
**Riser 014**  
**Group 200900162**





6AW-08-01FB1

Field Blank

(Hood subsampling)

**AW106 EVAP3**  
**Grab Samples**  
**Riser 014**  
**Group 20090162**



S09T001751

Alpha/Beta

Americium

Breakdown Sample (2B)

Carbon-14

GEA

Hg

I-129

IC-an/org

ICP-TOTAL metals

MS Tc-99

MS Actinides

Np-237

pH

Plutonium

Selenium-79

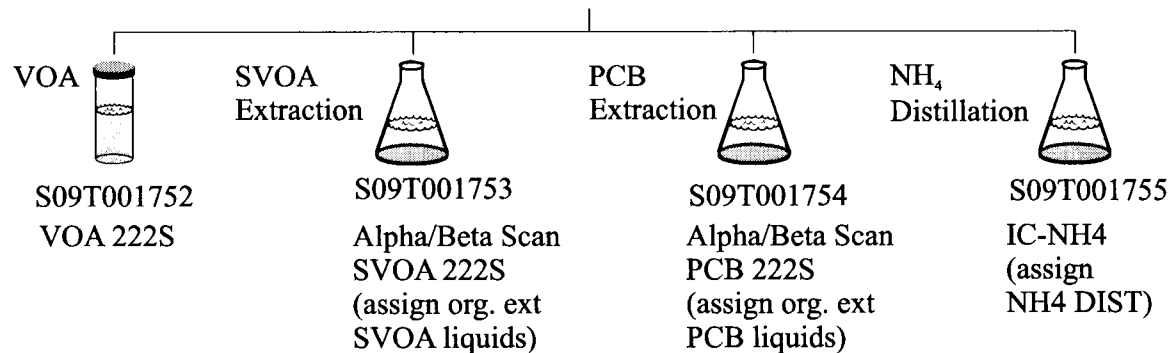
Sr-90

TIC/TOC

Tot. Carb.

Tot. Org Carb

Tritium



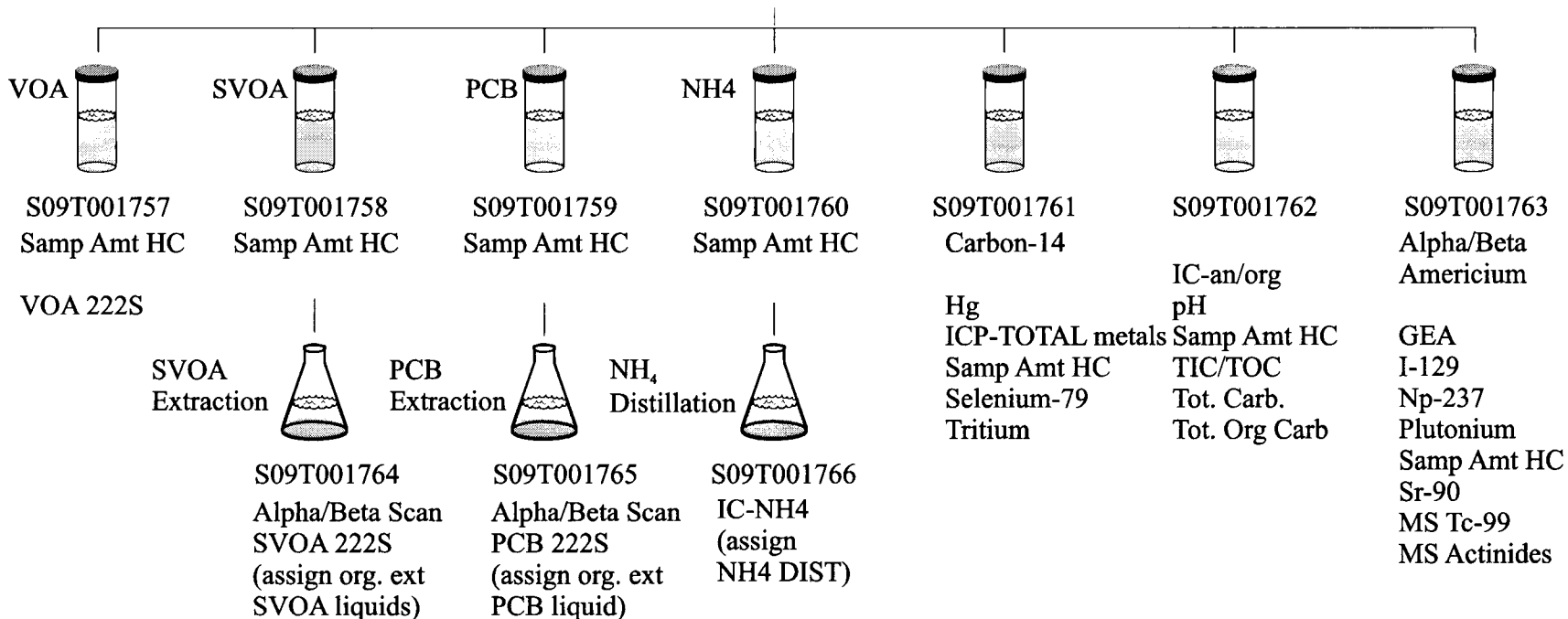
**AW106 EVAP3**  
**Grab Samples**  
**Riser 014**  
**Group 20090162**

6AW-08-01FB2  
 Field Blank  
 (Hot Cell subsampling)



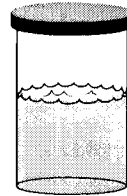
S09T001756

Appearance  
 Archive

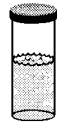


**AW106 EVAP3**  
**Grab Samples**  
**Riser 014**  
**Group 20090162**

6AW-08-01  
 (Surface Sample)  
 Grab Sample (Total)



S09T001770  
 Appearance  
 Archive  
 SpG HC(DP)



S09T001771  
 Americium  
 GEA  
 Plutonium  
 Samp Amt HC  
 Sr-90



S09T001772  
 IC-an/org(DUP,MS)  
 pH(DUP)  
 Samp Amt HC  
 TIC/TOC(DUP,MS)  
 Hg



S09T001773  
 ICP-TOTAL metals(DP,MS)  
 OH(DP,SPK)  
 Samp Amt HC  
 TGA (DP)  
 DSC-TA  
 DSC dry calc  
 Tot. Carb. (DP, MS)  
 Tot. Org Carb(DP, MS)



S09T001774  
 Samp Amt HC



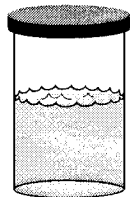
PCB  
 Extract

S09T001775  
 Alpha/Beta Scan  
 PCB 222S (MS,MSD)  
 (assign org. ext PCB liquid)

# **AW106 EVAP3** **Grab Samples** **Groups 20090162 & 20090163**

Riser 014  
Group 20090162

6AW-08-02A  
Grab Sample (Total)

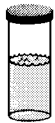


S09T001776

Appearance  
Archive



VOA

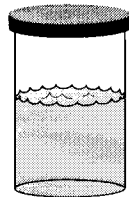


S09T001777

Samp Amt HC

VOA 222S (MS,MSD)

6AW-08-03A  
Grab Sample (Total)



S09T001788

Appearance  
Archive



VOA



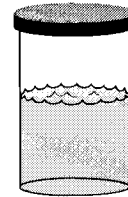
S09T001789

Samp Amt HC

VOA 222S

Riser 019  
Group 20090163

6AW-08-04A  
Grab Sample (Total)



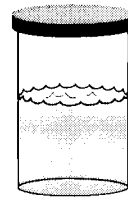
S09T001800

sample jar was broken  
during hot-cell load-in

VOA testing was  
performed on a  
subsample of  
6AW-08-04B

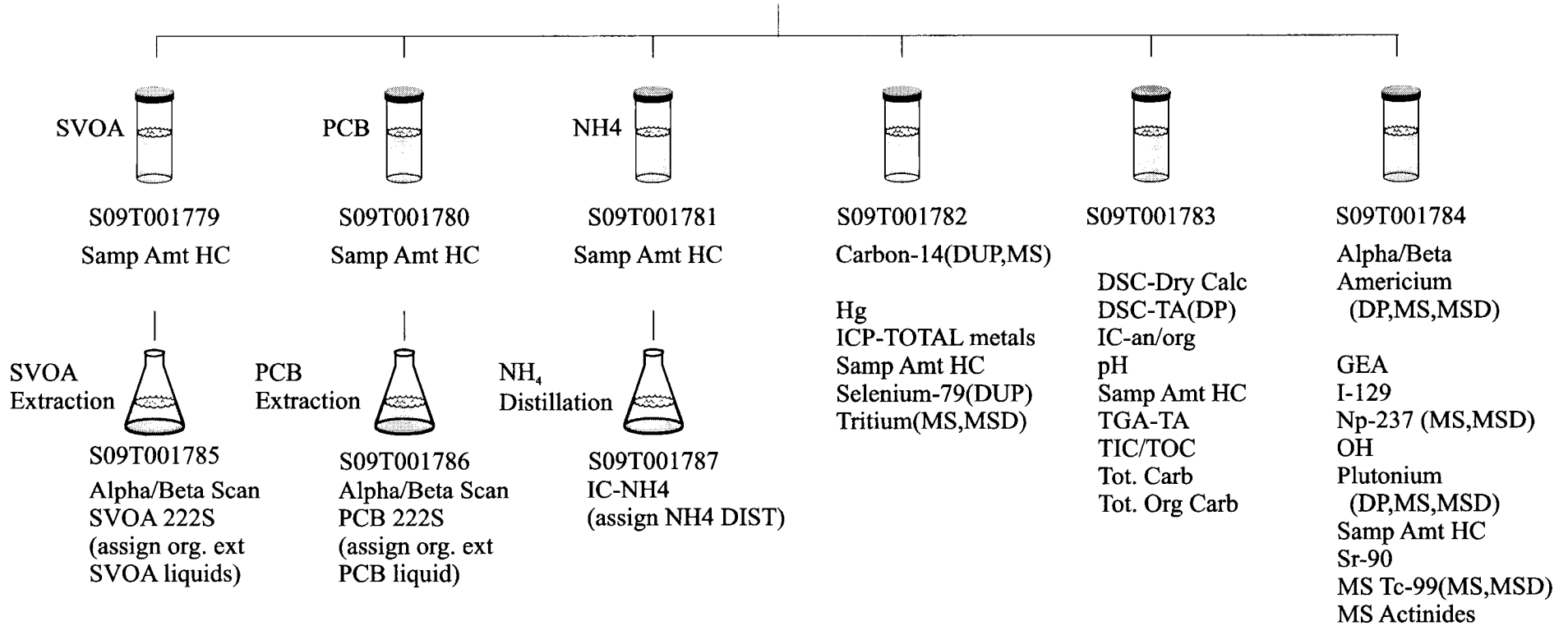
**AW106 EVAP3**  
**Grab Samples**  
**Riser 014**  
**Group 200900162**

6AW-08-02B  
 Grab Sample (Total)



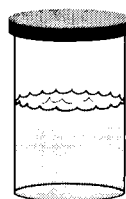
S09T001778

Appearance  
 SpG - HC  
 Archive



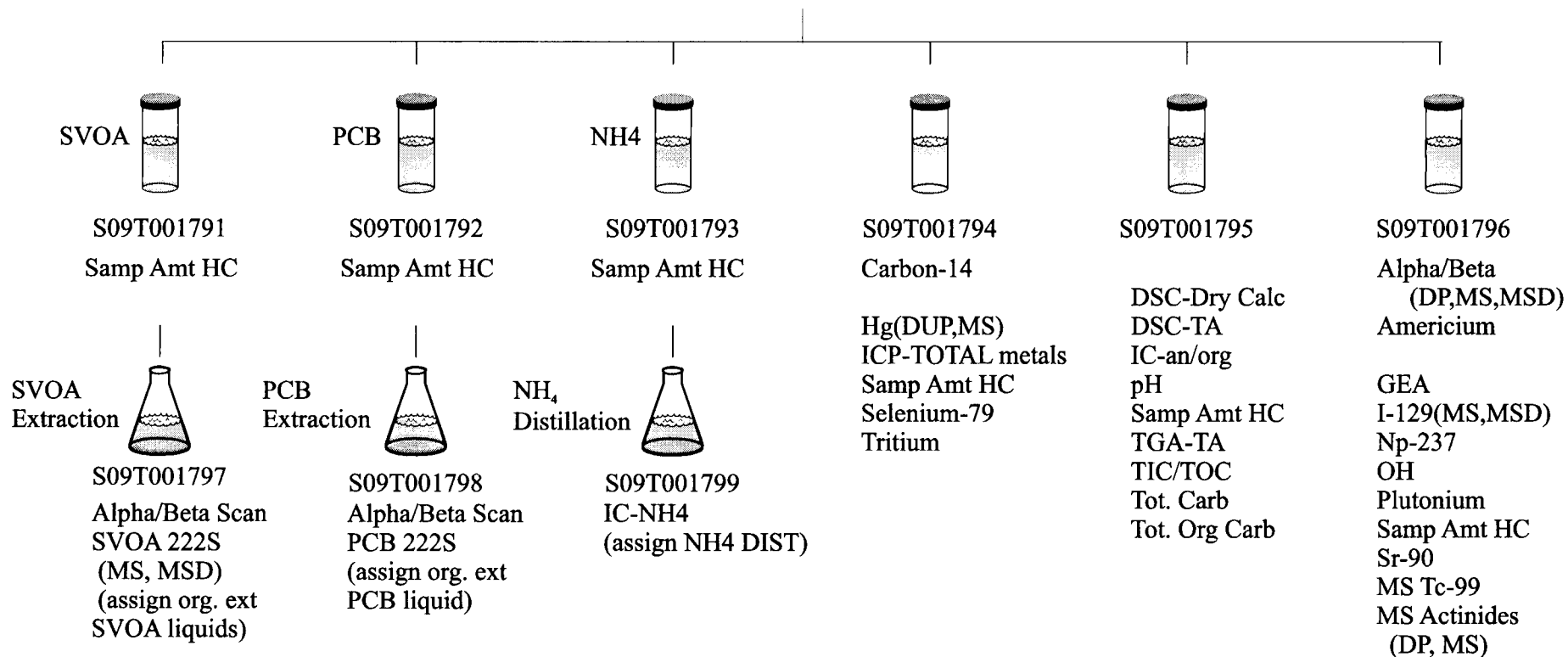
**AW106 EVAP3**  
**Grab Samples**  
**Riser 014**  
**Group 20090162**

6AW-08-03B  
 Grab Sample (Total)



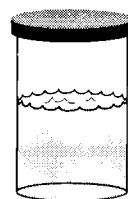
S09T001790

Appearance  
 SpG - HC  
 Archive



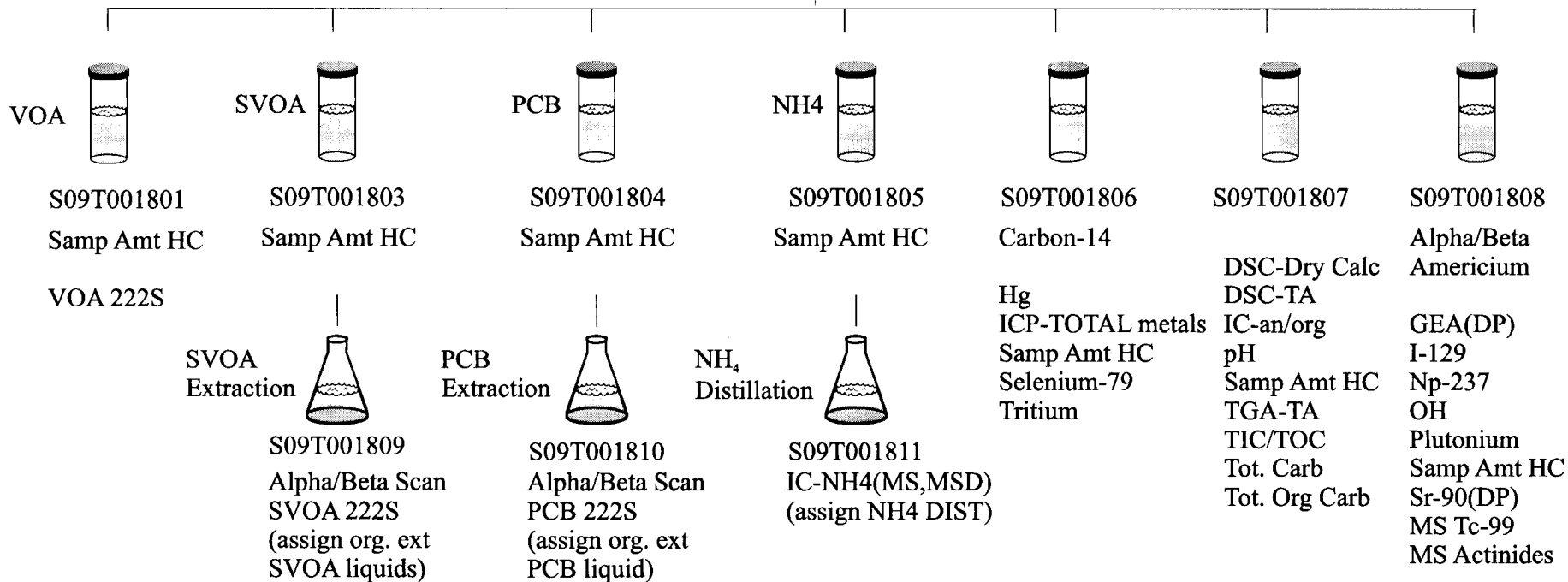
**AW106 EVAP3**  
**Grab Samples**  
**Riser 019**  
**Group 20090163**

6AW-08-04B  
 Grab Sample (Total)



S09T001802

Appearance  
 SpG - HC  
 Archive



Attachment 3

OPPORTUNISTIC ANALYTE RESULTS



AW106 EVAP3  
Opportunistic Analyte Results

Sample Group: 20090162

Riser: 014

Segment Number: 6AW-08-01

Segment Portion: Grab Sample (Total)

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S09T001771			15510-73-3	Curium-242	uCi/mL	n/a	<1.10E-06	<7.14E-06	n/a	n/a	n/a	n/a	7.14E-06	n/a	U
S09T001771			14234-35-6	Antimony-125	uCi/mL	n/a	<6.10E-05	<0.455	n/a	n/a	n/a	n/a	0.455	n/a	U
S09T001771			14683-23-9	Europium-152	uCi/mL	n/a	<1.19E-04	<0.0515	n/a	n/a	n/a	n/a	0.0515	n/a	U
S09T001771			14596-10-2	Americium-241	uCi/mL	58.7	<2.27E-05	<0.0957	n/a	n/a	n/a	n/a	0.0957	n/a	U
S09T001772			666-14-8	Glycolate	ug/mL	98.5	<9.37E-03	211	211	211	0.175	104	10.4	n/a	
S09T001772			71-50-1	Acetate	ug/mL	103	<6.04E-03	364	367	365	0.781	109	6.71	n/a	
S09T001772			12311-97-6	Formate	ug/mL	99.1	<4.67E-03	687	688	688	0.0800	102	5.19	n/a	
S09T001772			338-70-5	Oxalate	ug/mL	98.9	<0.0231	1.63E+03	1.64E+03	1.63E+03	0.343	97.3	25.7	n/a	
S09T001772			24959-67-9	Bromide	ug/mL	91.1	<0.0580	<64.4	<64.4	n/a	n/a	94.7	64.4	n/a	U
S09T001773			7440-42-8	Boron	ug/mL	104	<0.0300	<12.0	12.7	n/a	n/a	99.0	12.0	n/a	U
S09T001773			7440-39-3	Barium	ug/mL	98.6	<3.00E-03	<1.20	<1.20	n/a	n/a	98.4	1.20	n/a	U
S09T001773			7440-45-1	Cerium	ug/mL	104	<0.0300	<12.0	<12.0	n/a	n/a	97.2	12.0	n/a	U
S09T001773			7440-50-8	Copper	ug/mL	99.3	<5.00E-03	<2.00	<2.00	n/a	n/a	99.5	2.00	n/a	U
S09T001773			7440-53-1	Europium	ug/mL	96.8	<5.00E-03	<2.00	<2.00	n/a	n/a	98.9	2.00	n/a	U
S09T001773			7439-93-2	Lithium	ug/mL	104	<3.00E-03	<1.20	<1.20	n/a	n/a	96.0	1.20	n/a	U
S09T001773			7439-95-4	Magnesium	ug/mL	98.5	<0.0500	<20.0	<20.0	n/a	n/a	94.9	20.0	n/a	U
S09T001773			7439-98-7	Molybdenum	ug/mL	98.9	<0.0200	30.9	28.3	29.6	8.81	96.0	8.00	n/a	J
S09T001773			7440-00-8	Neodymium	ug/mL	98.1	<0.0100	<4.00	<4.00	n/a	n/a	97.3	4.00	n/a	U
S09T001773			7440-30-1	Niobium	ug/mL	105	<0.0300	<12.0	<12.0	n/a	n/a	100	12.0	n/a	U
S09T001773			7723-14-0	Phosphorus	ug/mL	99.6	<0.0500	1.02E+03	1.03E+03	1.03E+03	0.961	99.9	20.0	n/a	
S09T001773			7440-05-3	Palladium	ug/mL	99.1	<0.100	<40.0	<40.0	n/a	n/a	99.8	40.0	n/a	U
S09T001773			7440-10-0	Praseodymium	ug/mL	98.0	<0.0100	<4.00	<4.00	n/a	n/a	96.5	4.00	n/a	U
S09T001773			7440-17-7	Rubidium	ug/mL	98.5	<1.00	<400	<400	n/a	n/a	94.4	400	n/a	U
S09T001773			7440-18-8	Ruthenium	ug/mL	97.2	<0.0300	<12.0	<12.0	n/a	n/a	93.7	12.0	n/a	U
S09T001773			7704-34-9	Sulfur	ug/mL	100	<0.100	2.48E+03	2.50E+03	2.49E+03	0.491	98.3	40.0	n/a	
S09T001773			7440-36-0	Antimony	ug/mL	98.8	<0.0500	<20.0	<20.0	n/a	n/a	96.0	20.0	n/a	U
S09T001773			7440-19-9	Samarium	ug/mL	99.7	<0.0200	<8.00	<8.00	n/a	n/a	96.9	8.00	n/a	U
S09T001773			7440-31-5	Tin	ug/mL	102	<0.0300	<12.0	<12.0	n/a	n/a	98.5	12.0	n/a	U

NA = Not Analyzed, ND = Not Detected

B - Found in Blank

J - Estimated

N - Named TIC

T - Tentatively Identified Compound

U - Less Than Detection Limit

**AW106 EVAP3**  
**Opportunistic Analyte Results**

**Sample Group: 20090162**

**Riser: 014**

**Segment Number: 6AW-08-01**

**Segment Portion: Grab Sample (Total)**

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S09T001773			7440-25-7	Tantalum	ug/mL	104	<0.0500	<20.0	<20.0	n/a	n/a	102	20.0	n/a	U
S09T001773			7440-29-1	Thorium	ug/mL	98.8	<0.0500	<20.0	<20.0	n/a	n/a	97.2	20.0	n/a	U
S09T001773			7440-32-6	Titanium	ug/mL	101	<5.00E-03	<2.00	<2.00	n/a	n/a	96.3	2.00	n/a	U
S09T001773			7440-28-0	Thallium	ug/mL	100	<0.100	<40.0	<40.0	n/a	n/a	97.5	40.0	n/a	U
S09T001773			7440-62-2	Vanadium	ug/mL	101	<5.00E-03	<2.00	<2.00	n/a	n/a	98.8	2.00	n/a	U
S09T001773			7440-65-5	Yttrium	ug/mL	97.6	<2.00E-03	<0.800	<0.800	n/a	n/a	97.2	0.800	n/a	U

NA = Not Analyzed, ND = Not Detected

B - Found in Blank

J - Estimated

N - Named TIC

T - Tentatively Identified Compound

U - Less Than Detection Limit

AW106 EVAP3  
Opportunistic Analyte Results

Sample Group: 20090162

Riser: 014

Segment Number: 6AW-08-01FB1

Segment Portion: Field Blank

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S09T001751			15510-73-3	Curium-242	uCi/mL	n/a	<1.10E-06	<1.14E-06	n/a	n/a	n/a	n/a	1.14E-06	n/a	U
S09T001751			14234-35-6	Antimony-125	uCi/mL	n/a	<6.10E-05	<5.93E-05	n/a	n/a	n/a	n/a	5.93E-05	n/a	U
S09T001751			14683-23-9	Europium-152	uCi/mL	n/a	<1.19E-04	<1.22E-04	n/a	n/a	n/a	n/a	1.22E-04	n/a	U
S09T001751			14596-10-2	Americium-241	uCi/mL	58.7	<2.27E-05	<2.23E-05	n/a	n/a	n/a	n/a	2.23E-05	n/a	U
S09T001751			666-14-8	Glycolate	ug/mL	102	<9.37E-03	<9.37E-03	n/a	n/a	n/a	n/a	9.37E-03	n/a	U
S09T001751			71-50-1	Acetate	ug/mL	107	<6.04E-03	<6.04E-03	n/a	n/a	n/a	n/a	6.04E-03	n/a	U
S09T001751			12311-97-6	Formate	ug/mL	103	<4.67E-03	<4.67E-03	n/a	n/a	n/a	n/a	4.67E-03	n/a	U
S09T001751			338-70-5	Oxalate	ug/mL	102	<0.0231	<0.0231	n/a	n/a	n/a	n/a	0.0231	n/a	U
S09T001751			24959-67-9	Bromide	ug/mL	94.0	<0.0580	<0.0580	n/a	n/a	n/a	n/a	0.0580	n/a	U
S09T001751			7440-42-8	Boron	ug/mL	104	<0.0300	<0.0300	n/a	n/a	n/a	n/a	0.0300	n/a	U
S09T001751			7440-39-3	Barium	ug/mL	101	<3.00E-03	<3.00E-03	n/a	n/a	n/a	n/a	3.00E-03	n/a	U
S09T001751			7440-45-1	Cerium	ug/mL	105	<0.0300	<0.0300	n/a	n/a	n/a	n/a	0.0300	n/a	U
S09T001751			7440-50-8	Copper	ug/mL	101	<5.00E-03	<5.00E-03	n/a	n/a	n/a	n/a	5.00E-03	n/a	U
S09T001751			7440-53-1	Europium	ug/mL	99.4	<5.00E-03	<5.00E-03	n/a	n/a	n/a	n/a	5.00E-03	n/a	U
S09T001751			7439-93-2	Lithium	ug/mL	104	<3.00E-03	<3.00E-03	n/a	n/a	n/a	n/a	3.00E-03	n/a	U
S09T001751			7439-95-4	Magnesium	ug/mL	98.4	<0.0500	<0.0500	n/a	n/a	n/a	n/a	0.0500	n/a	U
S09T001751			7439-98-7	Molybdenum	ug/mL	100	<0.0200	<0.0200	n/a	n/a	n/a	n/a	0.0200	n/a	U
S09T001751			7440-00-8	Neodymium	ug/mL	101	<0.0100	<0.0100	n/a	n/a	n/a	n/a	0.0100	n/a	U
S09T001751			7440-30-1	Niobium	ug/mL	105	<0.0300	<0.0300	n/a	n/a	n/a	n/a	0.0300	n/a	U
S09T001751			7723-14-0	Phosphorus	ug/mL	101	<0.0500	<0.0500	n/a	n/a	n/a	n/a	0.0500	n/a	U
S09T001751			7440-05-3	Palladium	ug/mL	98.2	<0.100	<0.100	n/a	n/a	n/a	n/a	0.100	n/a	U
S09T001751			7440-10-0	Praseodymium	ug/mL	101	<0.0100	<0.0100	n/a	n/a	n/a	n/a	0.0100	n/a	U
S09T001751			7440-17-7	Rubidium	ug/mL	90.0	<1.00	<1.00	n/a	n/a	n/a	n/a	1.00	n/a	U
S09T001751			7440-18-8	Ruthenium	ug/mL	97.1	<0.0300	<0.0300	n/a	n/a	n/a	n/a	0.0300	n/a	U
S09T001751			7704-34-9	Sulfur	ug/mL	100	<0.100	<0.100	n/a	n/a	n/a	n/a	0.100	n/a	U
S09T001751			7440-36-0	Antimony	ug/mL	99.8	<0.0500	<0.0500	n/a	n/a	n/a	n/a	0.0500	n/a	U
S09T001751			7440-19-9	Samarium	ug/mL	101	<0.0200	<0.0200	n/a	n/a	n/a	n/a	0.0200	n/a	U
S09T001751			7440-31-5	Tin	ug/mL	101	<0.0300	<0.0300	n/a	n/a	n/a	n/a	0.0300	n/a	U

NA = Not Analyzed, ND = Not Detected

B - Found in Blank

J - Estimated

N - Named TIC

T - Tentatively Identified Compound

U - Less Than Detection Limit

**AW106 EVAP3**  
**Opportunistic Analyte Results**

**Sample Group: 20090162**

**Riser: 014**

**Segment Number: 6AW-08-01FB1**

**Segment Portion: Field Blank**

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S09T001751			7440-25-7	Tantalum	ug/mL	106	<0.0500	<0.0500	n/a	n/a	n/a	n/a	0.0500	n/a	U
S09T001751			7440-29-1	Thorium	ug/mL	98.6	<0.0500	<0.0500	n/a	n/a	n/a	n/a	0.0500	n/a	U
S09T001751			7440-32-6	Titanium	ug/mL	102	<5.00E-03	<5.00E-03	n/a	n/a	n/a	n/a	5.00E-03	n/a	U
S09T001751			7440-28-0	Thallium	ug/mL	99.2	<0.100	<0.100	n/a	n/a	n/a	n/a	0.100	n/a	U
S09T001751			7440-62-2	Vanadium	ug/mL	101	<5.00E-03	<5.00E-03	n/a	n/a	n/a	n/a	5.00E-03	n/a	U
S09T001751			7440-65-5	Yttrium	ug/mL	98.3	<2.00E-03	<2.00E-03	n/a	n/a	n/a	n/a	2.00E-03	n/a	U
S09T001751			13966-29-5	Uranium-234	ug/mL	n/a	<5.00E-09	<5.00E-08	n/a	n/a	n/a	n/a	5.00E-08	n/a	U
S09T001751			13982-70-2	Uranium-236	ug/mL	n/a	<4.00E-09	<4.00E-08	n/a	n/a	n/a	n/a	4.00E-08	n/a	U
S09T001752			75-35-4	1,1-Dichloroethene	ug/L	96.2	<0.170	<0.189	n/a	n/a	n/a	n/a	0.189	n/a	U
S09T001752			71-43-2	Benzene	ug/L	96.2	<0.160	<0.178	n/a	n/a	n/a	n/a	0.178	n/a	U
S09T001752			108-90-7	Chlorobenzene	ug/L	99.9	<0.110	<0.122	n/a	n/a	n/a	n/a	0.122	n/a	U
S09T001752			108-88-3	Toluene	ug/L	96.7	<0.120	<0.133	n/a	n/a	n/a	n/a	0.133	n/a	U
S09T001752			79-01-6	Trichloroethene	ug/L	96.2	<0.150	<0.167	n/a	n/a	n/a	n/a	0.167	n/a	U

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**AW106 EVAP3**  
**Opportunistic Analyte Results**

**Sample Group: 20090162**

**Riser: 014**

**Segment Number: 6AW-08-01FB2**

**Segment Portion: Field Blank**

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S09T001757			75-35-4	1,1-Dichloroethene	ug/L	96.2	<0.170	<6.80	n/a	n/a	n/a	n/a	6.80	n/a	U
S09T001757			71-43-2	Benzene	ug/L	96.2	<0.160	<6.40	n/a	n/a	n/a	n/a	6.40	n/a	U
S09T001757			108-90-7	Chlorobenzene	ug/L	99.9	<0.110	<4.40	n/a	n/a	n/a	n/a	4.40	n/a	U
S09T001757			108-88-3	Toluene	ug/L	96.7	<0.120	<4.80	n/a	n/a	n/a	n/a	4.80	n/a	U
S09T001757			79-01-6	Trichloroethene	ug/L	96.2	<0.150	<6.00	n/a	n/a	n/a	n/a	6.00	n/a	U
S09T001761			7440-42-8	Boron	ug/mL	104	<0.0300	1.48	n/a	n/a	n/a	n/a	0.0300	n/a	
S09T001761			7440-39-3	Barium	ug/mL	101	<3.00E-03	<3.00E-03	n/a	n/a	n/a	n/a	3.00E-03	n/a	U
S09T001761			7440-45-1	Cerium	ug/mL	105	<0.0300	<0.0300	n/a	n/a	n/a	n/a	0.0300	n/a	U
S09T001761			7440-50-8	Copper	ug/mL	101	<5.00E-03	<5.00E-03	n/a	n/a	n/a	n/a	5.00E-03	n/a	U
S09T001761			7440-53-1	Europium	ug/mL	99.4	<5.00E-03	<5.00E-03	n/a	n/a	n/a	n/a	5.00E-03	n/a	U
S09T001761			7439-93-2	Lithium	ug/mL	104	<3.00E-03	<3.00E-03	n/a	n/a	n/a	n/a	3.00E-03	n/a	U
S09T001761			7439-95-4	Magnesium	ug/mL	98.4	<0.0500	<0.0500	n/a	n/a	n/a	n/a	0.0500	n/a	U
S09T001761			7439-98-7	Molybdenum	ug/mL	100	<0.0200	<0.0200	n/a	n/a	n/a	n/a	0.0200	n/a	U
S09T001761			7440-00-8	Neodymium	ug/mL	101	<0.0100	<0.0100	n/a	n/a	n/a	n/a	0.0100	n/a	U
S09T001761			7440-30-1	Niobium	ug/mL	105	<0.0300	<0.0300	n/a	n/a	n/a	n/a	0.0300	n/a	U
S09T001761			7723-14-0	Phosphorus	ug/mL	101	<0.0500	<0.0500	n/a	n/a	n/a	n/a	0.0500	n/a	U
S09T001761			7440-05-3	Palladium	ug/mL	98.2	<0.100	<0.100	n/a	n/a	n/a	n/a	0.100	n/a	U
S09T001761			7440-10-0	Praseodymium	ug/mL	101	<0.0100	<0.0100	n/a	n/a	n/a	n/a	0.0100	n/a	U
S09T001761			7440-17-7	Rubidium	ug/mL	90.0	<1.00	<1.00	n/a	n/a	n/a	n/a	1.00	n/a	U
S09T001761			7440-18-8	Ruthenium	ug/mL	97.1	<0.0300	<0.0300	n/a	n/a	n/a	n/a	0.0300	n/a	U
S09T001761			7704-34-9	Sulfur	ug/mL	100	<0.100	<0.100	n/a	n/a	n/a	n/a	0.100	n/a	U
S09T001761			7440-36-0	Antimony	ug/mL	99.8	<0.0500	<0.0500	n/a	n/a	n/a	n/a	0.0500	n/a	U
S09T001761			7440-19-9	Samarium	ug/mL	101	<0.0200	<0.0200	n/a	n/a	n/a	n/a	0.0200	n/a	U
S09T001761			7440-31-5	Tin	ug/mL	101	<0.0300	<0.0300	n/a	n/a	n/a	n/a	0.0300	n/a	U
S09T001761			7440-25-7	Tantalum	ug/mL	106	<0.0500	<0.0500	n/a	n/a	n/a	n/a	0.0500	n/a	U
S09T001761			7440-29-1	Thorium	ug/mL	98.6	<0.0500	<0.0500	n/a	n/a	n/a	n/a	0.0500	n/a	U
S09T001761			7440-32-6	Titanium	ug/mL	102	<5.00E-03	<5.00E-03	n/a	n/a	n/a	n/a	5.00E-03	n/a	U
S09T001761			7440-28-0	Thallium	ug/mL	99.2	<0.100	<0.100	n/a	n/a	n/a	n/a	0.100	n/a	U

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**AW106 EVAP3**  
**Opportunistic Analyte Results**

**Sample Group: 20090162**

**Riser: 014**

**Segment Number: 6AW-08-01FB2**

**Segment Portion: Field Blank**

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S09T001761			7440-62-2	Vanadium	ug/mL	101	<5.00E-03	<5.00E-03	n/a	n/a	n/a	n/a	5.00E-03	n/a	U
S09T001761			7440-65-5	Yttrium	ug/mL	98.3	<2.00E-03	<2.00E-03	n/a	n/a	n/a	n/a	2.00E-03	n/a	U
S09T001762			666-14-8	Glycolate	ug/mL	102	<9.37E-03	<9.37E-03	n/a	n/a	n/a	n/a	9.37E-03	n/a	U
S09T001762			71-50-1	Acetate	ug/mL	107	<6.04E-03	<6.04E-03	n/a	n/a	n/a	n/a	6.04E-03	n/a	U
S09T001762			12311-97-6	Formate	ug/mL	103	<4.67E-03	5.70E-03	n/a	n/a	n/a	n/a	4.67E-03	n/a	J
S09T001762			338-70-5	Oxalate	ug/mL	102	<0.0231	<0.0231	n/a	n/a	n/a	n/a	0.0231	n/a	U
S09T001762			24959-67-9	Bromide	ug/mL	94.0	<0.0580	<0.0580	n/a	n/a	n/a	n/a	0.0580	n/a	U
S09T001763			15510-73-3	Curium-242	uCi/mL	n/a	<1.10E-06	<1.04E-06	n/a	n/a	n/a	n/a	1.04E-06	n/a	U
S09T001763			14234-35-6	Antimony-125	uCi/mL	n/a	<6.10E-05	<6.16E-05	n/a	n/a	n/a	n/a	6.16E-05	n/a	U
S09T001763			14683-23-9	Europium-152	uCi/mL	n/a	<1.19E-04	<1.10E-04	n/a	n/a	n/a	n/a	1.10E-04	n/a	U
S09T001763			14596-10-2	Americium-241	uCi/mL	58.7	<2.27E-05	<2.17E-05	n/a	n/a	n/a	n/a	2.17E-05	n/a	U
S09T001763			13966-29-5	Uranium-234	ug/mL	n/a	<5.00E-09	<5.00E-08	n/a	n/a	n/a	n/a	5.00E-08	n/a	U
S09T001763			13982-70-2	Uranium-236	ug/mL	n/a	<4.00E-09	1.02E-07	n/a	n/a	n/a	n/a	4.00E-08	n/a	J

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U - Less Than Detection Limit

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**AW106 EVAP3**  
**Opportunistic Analyte Results**

**Sample Group: 20090162**

**Riser: 014**

**Segment Number: 6AW-08-01TB**

**Segment Portion: Trip Blank**

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S09T001768			75-35-4	1,1-Dichloroethene	ug/L	96.2	<0.170	<0.189	n/a	n/a	n/a	n/a	0.189	n/a	U
S09T001768			71-43-2	Benzene	ug/L	96.2	<0.160	<0.178	n/a	n/a	n/a	n/a	0.178	n/a	U
S09T001768			108-90-7	Chlorobenzene	ug/L	99.9	<0.110	<0.122	n/a	n/a	n/a	n/a	0.122	n/a	U
S09T001768			108-88-3	Toluene	ug/L	96.7	<0.120	<0.133	n/a	n/a	n/a	n/a	0.133	n/a	U
S09T001768			79-01-6	Trichloroethene	ug/L	96.2	<0.150	<0.167	n/a	n/a	n/a	n/a	0.167	n/a	U

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B - Found in Blank

J - Estimated

N - Named TIC

T - Tentatively Identified Compound

U - Less Than Detection Limit

12 - May - 2009 15:46:03  
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 DSR.Jar v. 2.7.26a

**AW106 EVAP3**  
**Opportunistic Analyte Results**

**Sample Group: 20090162**

**Riser: 014**

**Segment Number: 6AW-08-02A**

**Segment Portion: Grab Sample (Total)**

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S09T001777			75-35-4	1,1-Dichloroethene	ug/L	96.2	<0.170	<6.80	n/a	n/a	n/a	114	6.80	n/a	U
S09T001777			71-43-2	Benzene	ug/L	96.2	<0.160	<6.40	n/a	n/a	n/a	104	6.40	n/a	U
S09T001777			108-90-7	Chlorobenzene	ug/L	99.9	<0.110	<4.40	n/a	n/a	n/a	102	4.40	n/a	U
S09T001777			108-88-3	Toluene	ug/L	96.7	<0.120	<4.80	n/a	n/a	n/a	101	4.80	n/a	U
S09T001777			79-01-6	Trichloroethene	ug/L	96.2	<0.150	<6.00	n/a	n/a	n/a	103	6.00	n/a	U

NA = Not Analyzed, ND = Not Detected

B - Found in Blank  
 U - Less Than Detection Limit

J - Estimated

N - Named TIC

T - Tentatively Identified Compound



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 DSR.Jar v. 2.7.26a

**AW106 EVAP3**  
**Opportunistic Analyte Results**

**Sample Group: 20090162**

**Riser: 014**

**Segment Number: 6AW-08-02B**

**Segment Portion: Grab Sample (Total)**

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S09T001782			7440-42-8	Boron	ug/mL	104	<0.0300	14.3	n/a	n/a	n/a	n/a	12.0	n/a	J
S09T001782			7440-39-3	Barium	ug/mL	101	<3.00E-03	<1.20	n/a	n/a	n/a	n/a	1.20	n/a	U
S09T001782			7440-45-1	Cerium	ug/mL	105	<0.0300	<12.0	n/a	n/a	n/a	n/a	12.0	n/a	U
S09T001782			7440-50-8	Copper	ug/mL	101	<5.00E-03	<2.00	n/a	n/a	n/a	n/a	2.00	n/a	U
S09T001782			7440-53-1	Europium	ug/mL	99.4	<5.00E-03	<2.00	n/a	n/a	n/a	n/a	2.00	n/a	U
S09T001782			7439-93-2	Lithium	ug/mL	104	<3.00E-03	<1.20	n/a	n/a	n/a	n/a	1.20	n/a	U
S09T001782			7439-95-4	Magnesium	ug/mL	98.4	<0.0500	<20.0	n/a	n/a	n/a	n/a	20.0	n/a	U
S09T001782			7439-98-7	Molybdenum	ug/mL	100	<0.0200	28.3	n/a	n/a	n/a	n/a	8.00	n/a	J
S09T001782			7440-00-8	Neodymium	ug/mL	101	<0.0100	<4.00	n/a	n/a	n/a	n/a	4.00	n/a	U
S09T001782			7440-30-1	Niobium	ug/mL	105	<0.0300	<12.0	n/a	n/a	n/a	n/a	12.0	n/a	U
S09T001782			7723-14-0	Phosphorus	ug/mL	101	<0.0500	1.06E+03	n/a	n/a	n/a	n/a	20.0	n/a	
S09T001782			7440-05-3	Palladium	ug/mL	98.2	<0.100	<40.0	n/a	n/a	n/a	n/a	40.0	n/a	U
S09T001782			7440-10-0	Praseodymium	ug/mL	101	<0.0100	<4.00	n/a	n/a	n/a	n/a	4.00	n/a	U
S09T001782			7440-17-7	Rubidium	ug/mL	90.0	<1.00	<400	n/a	n/a	n/a	n/a	400	n/a	U
S09T001782			7440-18-8	Ruthenium	ug/mL	97.1	<0.0300	<12.0	n/a	n/a	n/a	n/a	12.0	n/a	U
S09T001782			7704-34-9	Sulfur	ug/mL	100	<0.100	2.56E+03	n/a	n/a	n/a	n/a	40.0	n/a	
S09T001782			7440-36-0	Antimony	ug/mL	99.8	<0.0500	<20.0	n/a	n/a	n/a	n/a	20.0	n/a	U
S09T001782			7440-19-9	Samarium	ug/mL	101	<0.0200	<8.00	n/a	n/a	n/a	n/a	8.00	n/a	U
S09T001782			7440-31-5	Tin	ug/mL	101	<0.0300	<12.0	n/a	n/a	n/a	n/a	12.0	n/a	U
S09T001782			7440-25-7	Tantalum	ug/mL	106	<0.0500	<20.0	n/a	n/a	n/a	n/a	20.0	n/a	U
S09T001782			7440-29-1	Thorium	ug/mL	98.6	<0.0500	<20.0	n/a	n/a	n/a	n/a	20.0	n/a	U
S09T001782			7440-32-6	Titanium	ug/mL	102	<5.00E-03	<2.00	n/a	n/a	n/a	n/a	2.00	n/a	U
S09T001782			7440-28-0	Thallium	ug/mL	99.2	<0.100	<40.0	n/a	n/a	n/a	n/a	40.0	n/a	U
S09T001782			7440-62-2	Vanadium	ug/mL	101	<5.00E-03	<2.00	n/a	n/a	n/a	n/a	2.00	n/a	U
S09T001782			7440-65-5	Yttrium	ug/mL	98.3	<2.00E-03	<0.800	n/a	n/a	n/a	n/a	0.800	n/a	U
S09T001783			666-14-8	Glycolate	ug/mL	98.5	<9.37E-03	203	n/a	n/a	n/a	n/a	10.4	n/a	
S09T001783			71-50-1	Acetate	ug/mL	103	<6.04E-03	347	n/a	n/a	n/a	n/a	6.71	n/a	
S09T001783			12311-97-6	Formate	ug/mL	99.1	<4.67E-03	654	n/a	n/a	n/a	n/a	5.19	n/a	

NA = Not Analyzed, ND = Not Detected

B - Found in Blank

J - Estimated

N - Named TIC

T - Tentatively Identified Compound

U - Less Than Detection Limit

12 - May - 2009 15:46:03  
 DSRHardcopyWOLimits 2.7.26a  
 DSR.Jar v. 2.7.26a

**AW106 EVAP3**  
**Opportunistic Analyte Results**

**Sample Group: 20090162**

**Riser: 014**

**Segment Number: 6AW-08-02B**

**Segment Portion: Grab Sample (Total)**

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S09T001783			338-70-5	Oxalate	ug/mL	98.9	<0.0231	1.56E+03	n/a	n/a	n/a	n/a	25.7	n/a	
S09T001783			24959-67-9	Bromide	ug/mL	91.1	<0.0580	<64.4	n/a	n/a	n/a	n/a	64.4	n/a	U
S09T001784			15510-73-3	Curium-242	uCi/mL	n/a	<1.10E-06	<7.22E-06	<6.60E-06	n/a	n/a	n/a	7.22E-06	n/a	U
S09T001784			14234-35-6	Antimony-125	uCi/mL	n/a	<6.10E-05	<0.470	n/a	n/a	n/a	n/a	0.470	n/a	U
S09T001784			14683-23-9	Europium-152	uCi/mL	n/a	<1.19E-04	<0.0527	n/a	n/a	n/a	n/a	0.0527	n/a	U
S09T001784			14596-10-2	Americium-241	uCi/mL	58.7	<2.27E-05	<0.0987	n/a	n/a	n/a	n/a	0.0987	n/a	U
S09T001784			13966-29-5	Uranium-234	ug/mL	n/a	<5.00E-09	1.80E-03	n/a	n/a	n/a	n/a	2.50E-04	n/a	J
S09T001784			13982-70-2	Uranium-236	ug/mL	n/a	<4.00E-09	3.10E-03	n/a	n/a	n/a	n/a	2.00E-04	n/a	

NA = Not Analyzed, ND = Not Detected

B - Found in Blank  
 U - Less Than Detection Limit

J - Estimated

N - Named TIC

T - Tentatively Identified Compound

12 - May - 2009 15:46:03  
 DSRHardcopyWOLimits 2.7.26a  
 DSR.Jar v. 2.7.26a

**AW106 EVAP3**  
**Opportunistic Analyte Results**

**Sample Group: 20090162**

**Riser: 014**

**Segment Number: 6AW-08-03A**

**Segment Portion: Grab Sample (Total)**

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S09T001789			75-35-4	1,1-Dichloroethene	ug/L	96.2	<0.170	<6.80	n/a	n/a	n/a	n/a	6.80	n/a	U
S09T001789			71-43-2	Benzene	ug/L	96.2	<0.160	<6.40	n/a	n/a	n/a	n/a	6.40	n/a	U
S09T001789			108-90-7	Chlorobenzene	ug/L	99.9	<0.110	<4.40	n/a	n/a	n/a	n/a	4.40	n/a	U
S09T001789			108-88-3	Toluene	ug/L	96.7	<0.120	<4.80	n/a	n/a	n/a	n/a	4.80	n/a	U
S09T001789			79-01-6	Trichloroethene	ug/L	96.2	<0.150	<6.00	n/a	n/a	n/a	n/a	6.00	n/a	U

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B - Found in Blank  
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J - Estimated

N - Named TIC

T - Tentatively Identified Compound

12 - May - 2009 15:46:03  
 DSRHardcopyWOLimits 2.7.26a  
 DSR.Jar v. 2.7.26a

**AW106 EVAP3**  
**Opportunistic Analyte Results**

**Sample Group: 20090162**

**Riser: 014**

**Segment Number: 6AW-08-03B**

**Segment Portion: Grab Sample (Total)**

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S09T001794			7440-42-8	Boron	ug/mL	104	<0.0300	13.1	n/a	n/a	n/a	n/a	12.0	n/a	J
S09T001794			7440-39-3	Barium	ug/mL	101	<3.00E-03	<1.20	n/a	n/a	n/a	n/a	1.20	n/a	U
S09T001794			7440-45-1	Cerium	ug/mL	105	<0.0300	<12.0	n/a	n/a	n/a	n/a	12.0	n/a	U
S09T001794			7440-50-8	Copper	ug/mL	101	<5.00E-03	<2.00	n/a	n/a	n/a	n/a	2.00	n/a	U
S09T001794			7440-53-1	Europium	ug/mL	99.4	<5.00E-03	<2.00	n/a	n/a	n/a	n/a	2.00	n/a	U
S09T001794			7439-93-2	Lithium	ug/mL	104	<3.00E-03	<1.20	n/a	n/a	n/a	n/a	1.20	n/a	U
S09T001794			7439-95-4	Magnesium	ug/mL	98.4	<0.0500	<20.0	n/a	n/a	n/a	n/a	20.0	n/a	U
S09T001794			7439-98-7	Molybdenum	ug/mL	100	<0.0200	30.0	n/a	n/a	n/a	n/a	8.00	n/a	J
S09T001794			7440-00-8	Neodymium	ug/mL	101	<0.0100	<4.00	n/a	n/a	n/a	n/a	4.00	n/a	U
S09T001794			7440-30-1	Niobium	ug/mL	105	<0.0300	<12.0	n/a	n/a	n/a	n/a	12.0	n/a	U
S09T001794			7723-14-0	Phosphorus	ug/mL	101	<0.0500	1.07E+03	n/a	n/a	n/a	n/a	20.0	n/a	
S09T001794			7440-05-3	Palladium	ug/mL	98.2	<0.100	<40.0	n/a	n/a	n/a	n/a	40.0	n/a	U
S09T001794			7440-10-0	Praseodymium	ug/mL	101	<0.0100	<4.00	n/a	n/a	n/a	n/a	4.00	n/a	U
S09T001794			7440-17-7	Rubidium	ug/mL	90.0	<1.00	<400	n/a	n/a	n/a	n/a	400	n/a	U
S09T001794			7440-18-8	Ruthenium	ug/mL	97.1	<0.0300	<12.0	n/a	n/a	n/a	n/a	12.0	n/a	U
S09T001794			7704-34-9	Sulfur	ug/mL	100	<0.100	2.59E+03	n/a	n/a	n/a	n/a	40.0	n/a	
S09T001794			7440-36-0	Antimony	ug/mL	99.8	<0.0500	<20.0	n/a	n/a	n/a	n/a	20.0	n/a	U
S09T001794			7440-19-9	Samarium	ug/mL	101	<0.0200	<8.00	n/a	n/a	n/a	n/a	8.00	n/a	U
S09T001794			7440-31-5	Tin	ug/mL	101	<0.0300	<12.0	n/a	n/a	n/a	n/a	12.0	n/a	U
S09T001794			7440-25-7	Tantalum	ug/mL	106	<0.0500	<20.0	n/a	n/a	n/a	n/a	20.0	n/a	U
S09T001794			7440-29-1	Thorium	ug/mL	98.6	<0.0500	<20.0	n/a	n/a	n/a	n/a	20.0	n/a	U
S09T001794			7440-32-6	Titanium	ug/mL	102	<5.00E-03	<2.00	n/a	n/a	n/a	n/a	2.00	n/a	U
S09T001794			7440-28-0	Thallium	ug/mL	99.2	<0.100	<40.0	n/a	n/a	n/a	n/a	40.0	n/a	U
S09T001794			7440-62-2	Vanadium	ug/mL	101	<5.00E-03	<2.00	n/a	n/a	n/a	n/a	2.00	n/a	U
S09T001794			7440-65-5	Yttrium	ug/mL	98.3	<2.00E-03	<0.800	n/a	n/a	n/a	n/a	0.800	n/a	U
S09T001795			666-14-8	Glycolate	ug/mL	98.5	<9.37E-03	233	n/a	n/a	n/a	n/a	10.4	n/a	
S09T001795			71-50-1	Acetate	ug/mL	103	<6.04E-03	405	n/a	n/a	n/a	n/a	6.71	n/a	
S09T001795			12311-97-6	Formate	ug/mL	99.1	<4.67E-03	752	n/a	n/a	n/a	n/a	5.19	n/a	

NA = Not Analyzed, ND = Not Detected

B - Found in Blank  
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J - Estimated

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T - Tentatively Identified Compound

12 - May - 2009 15:46:03  
 DSRHardcopyWOLimits 2.7.26a  
 DSR.Jar v. 2.7.26a

**AW106 EVAP3**  
**Opportunistic Analyte Results**

**Sample Group: 20090162**

**Riser: 014**

**Segment Number: 6AW-08-03B**

**Segment Portion: Grab Sample (Total)**

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S09T001795			338-70-5	Oxalate	ug/mL	98.9	<0.0231	1.79E+03	n/a	n/a	n/a	n/a	25.7	n/a	
S09T001795			24959-67-9	Bromide	ug/mL	91.1	<0.0580	<64.4	n/a	n/a	n/a	n/a	64.4	n/a	U
S09T001796			15510-73-3	Curium-242	uCi/mL	n/a	<1.10E-06	<6.82E-06	n/a	n/a	n/a	n/a	6.82E-06	n/a	U
S09T001796			14234-35-6	Antimony-125	uCi/mL	n/a	<6.10E-05	<0.462	n/a	n/a	n/a	n/a	0.462	n/a	U
S09T001796			14683-23-9	Europium-152	uCi/mL	n/a	<1.19E-04	<0.0527	n/a	n/a	n/a	n/a	0.0527	n/a	U
S09T001796			14596-10-2	Americium-241	uCi/mL	58.7	<2.27E-05	<0.0979	n/a	n/a	n/a	n/a	0.0979	n/a	U
S09T001796			13966-29-5	Uranium-234	ug/mL	n/a	<5.00E-09	1.83E-03	1.68E-03	1.76E-03	8.26	n/a	2.50E-04	n/a	J
S09T001796			13982-70-2	Uranium-236	ug/mL	n/a	<4.00E-09	4.35E-03	4.84E-03	4.59E-03	10.7	n/a	2.00E-04	n/a	

B - Found in Blank  
 U - Less Than Detection Limit

J - Estimated

N - Named TIC

NA = Not Analyzed, ND = Not Detected  
 T - Tentatively Identified Compound

**AW106 EVAP3**  
**Opportunistic Analyte Results**

Sample Group: 20090163

Riser: 019

Segment Number: 6AW-08-04B

Segment Portion: Grab Sample (Total)

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S09T001801			75-35-4	1,1-Dichloroethene	ug/L	114	<0.170	<6.80	n/a	n/a	n/a	n/a	6.80	n/a	U
S09T001801			71-43-2	Benzene	ug/L	105	<0.160	<6.40	n/a	n/a	n/a	n/a	6.40	n/a	U
S09T001801			108-90-7	Chlorobenzene	ug/L	106	<0.110	<4.40	n/a	n/a	n/a	n/a	4.40	n/a	U
S09T001801			108-88-3	Toluene	ug/L	104	<0.120	<4.80	n/a	n/a	n/a	n/a	4.80	n/a	U
S09T001801			79-01-6	Trichloroethene	ug/L	108	<0.150	<6.00	n/a	n/a	n/a	n/a	6.00	n/a	U
S09T001806			7440-42-8	Boron	ug/mL	104	<0.0300	14.5	n/a	n/a	n/a	n/a	12.0	n/a	J
S09T001806			7440-39-3	Barium	ug/mL	101	<3.00E-03	<1.20	n/a	n/a	n/a	n/a	1.20	n/a	U
S09T001806			7440-45-1	Cerium	ug/mL	105	<0.0300	<12.0	n/a	n/a	n/a	n/a	12.0	n/a	U
S09T001806			7440-50-8	Copper	ug/mL	101	<5.00E-03	<2.00	n/a	n/a	n/a	n/a	2.00	n/a	U
S09T001806			7440-53-1	Europium	ug/mL	99.4	<5.00E-03	<2.00	n/a	n/a	n/a	n/a	2.00	n/a	U
S09T001806			7439-93-2	Lithium	ug/mL	104	<3.00E-03	<1.20	n/a	n/a	n/a	n/a	1.20	n/a	U
S09T001806			7439-95-4	Magnesium	ug/mL	98.4	<0.0500	<20.0	n/a	n/a	n/a	n/a	20.0	n/a	U
S09T001806			7439-98-7	Molybdenum	ug/mL	100	<0.0200	29.5	n/a	n/a	n/a	n/a	8.00	n/a	J
S09T001806			7440-00-8	Neodymium	ug/mL	101	<0.0100	<4.00	n/a	n/a	n/a	n/a	4.00	n/a	U
S09T001806			7440-30-1	Niobium	ug/mL	105	<0.0300	<12.0	n/a	n/a	n/a	n/a	12.0	n/a	U
S09T001806			7723-14-0	Phosphorus	ug/mL	101	<0.0500	1.08E+03	n/a	n/a	n/a	n/a	20.0	n/a	
S09T001806			7440-05-3	Palladium	ug/mL	98.2	<0.100	<40.0	n/a	n/a	n/a	n/a	40.0	n/a	U
S09T001806			7440-10-0	Praseodymium	ug/mL	101	<0.0100	<4.00	n/a	n/a	n/a	n/a	4.00	n/a	U
S09T001806			7440-17-7	Rubidium	ug/mL	90.0	<1.00	<400	n/a	n/a	n/a	n/a	400	n/a	U
S09T001806			7440-18-8	Ruthenium	ug/mL	97.1	<0.0300	<12.0	n/a	n/a	n/a	n/a	12.0	n/a	U
S09T001806			7704-34-9	Sulfur	ug/mL	100	<0.100	2.60E+03	n/a	n/a	n/a	n/a	40.0	n/a	
S09T001806			7440-36-0	Antimony	ug/mL	99.8	<0.0500	<20.0	n/a	n/a	n/a	n/a	20.0	n/a	U
S09T001806			7440-19-9	Samarium	ug/mL	101	<0.0200	<8.00	n/a	n/a	n/a	n/a	8.00	n/a	U
S09T001806			7440-31-5	Tin	ug/mL	101	<0.0300	<12.0	n/a	n/a	n/a	n/a	12.0	n/a	U
S09T001806			7440-25-7	Tantalum	ug/mL	106	<0.0500	<20.0	n/a	n/a	n/a	n/a	20.0	n/a	U
S09T001806			7440-29-1	Thorium	ug/mL	98.6	<0.0500	<20.0	n/a	n/a	n/a	n/a	20.0	n/a	U
S09T001806			7440-32-6	Titanium	ug/mL	102	<5.00E-03	<2.00	n/a	n/a	n/a	n/a	2.00	n/a	U
S09T001806			7440-28-0	Thallium	ug/mL	99.2	<0.100	<40.0	n/a	n/a	n/a	n/a	40.0	n/a	U

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J - Estimated

N - Named TIC

T - Tentatively Identified Compound

**AW106 EVAP3**  
**Opportunistic Analyte Results**

**Sample Group: 20090163**

**Riser: 019**

**Segment Number: 6AW-08-04B**

**Segment Portion: Grab Sample (Total)**

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S09T001806			7440-62-2	Vanadium	ug/mL	101	<5.00E-03	<2.00	n/a	n/a	n/a	n/a	2.00	n/a	U
S09T001806			7440-65-5	Yttrium	ug/mL	98.3	<2.00E-03	<0.800	n/a	n/a	n/a	n/a	0.800	n/a	U
S09T001807			666-14-8	Glycolate	ug/mL	102	<9.37E-03	246	244	245	0.783	106	10.4	n/a	
S09T001807			71-50-1	Acetate	ug/mL	108	<6.04E-03	440	430	435	2.42	113	6.71	n/a	
S09T001807			12311-97-6	Formate	ug/mL	103	<4.67E-03	816	799	808	2.12	105	5.19	n/a	
S09T001807			338-70-5	Oxalate	ug/mL	102	<0.0231	1.91E+03	1.89E+03	1.90E+03	1.20	98.3	25.7	n/a	
S09T001807			24959-67-9	Bromide	ug/mL	93.1	<0.0580	<64.4	<64.4	n/a	n/a	92.5	64.4	n/a	U
S09T001808			15510-73-3	Curium-242	uCi/mL	n/a	<1.10E-06	<7.18E-06	n/a	n/a	n/a	n/a	7.18E-06	n/a	U
S09T001808			14234-35-6	Antimony-125	uCi/mL	n/a	<6.10E-05	<0.461	<0.466	n/a	n/a	n/a	0.461	n/a	U
S09T001808			14683-23-9	Europium-152	uCi/mL	n/a	<1.19E-04	<0.0524	<0.0511	n/a	n/a	n/a	0.0524	n/a	U
S09T001808			14596-10-2	Americium-241	uCi/mL	58.7	<2.27E-05	<0.0971	<0.0982	n/a	n/a	n/a	0.0971	n/a	U
S09T001808			13966-29-5	Uranium-234	ug/mL	n/a	<5.00E-09	8.73E-04	n/a	n/a	n/a	n/a	2.50E-04	n/a	J
S09T001808			13982-70-2	Uranium-236	ug/mL	n/a	<4.00E-09	3.37E-03	n/a	n/a	n/a	n/a	2.00E-04	n/a	

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B - Found in Blank  
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Attachment 4

SURROGATE RECOVERIES



# RPP-RPT-40709 Rev. 1

## 2A WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Contract:  
Lab Code: Case No.: SAS No.: SDG No.: 20090162A

	EPA SAMPLE NO.	SMC1 #	SMC2 (DCE) #	SMC3 (TOL) #	OTHER (BFB) #	TOT OUT
01	CCB	109	103	104	105	0
02	LCS	99	99	94	97	0
03	S09T001752	113	117	105	112	0
04	S09T001768	114	115	109	116	0
05	S09T001757	105	102	106	105	0
06	S09T001777	8*	104	99	101	1
07	S09T001777MS	5*	108	99	105	1
08	S09T001777MS	3*	112	104	105	1
09	S09T001789	4*	110	106	108	1
10	S09T001801	195*	8262*	7203*	5718*	4
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QC LIMITS  
SMC1 = Dibromofluoromethane (70-130)  
SMC2 (DCE) = 1,2-Dichloroethane-d4 (70-130)  
SMC3 (TOL) = Toluene-d8 (70-130)  
OTHER (BFB) = Bromofluorobenzene (70-130)

# Column to be used to flag recovery values

\* Values outside of contract required QC limits

Sample S09T001801 NOT Reported from this  
batch due to QC Failure. ReRun performed  
03/13/09 mjd 03/14/09

# RPP-RPT-40709 Rev. 1

## 2A WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name:

Contract:

Lab Code:

Case No.:

SAS No.:

SDG No.: 20090162B

	EPA SAMPLE NO.	SMC1 #	SMC2 (DCE) #	SMC3 (TOL) #	OTHER (BFB) #	TOT OUT
	=====	=====	=====	=====	=====	=====
01	CCB	108	105	104	108	0
02	LCS	106	103	101	104	0
03	S09T001801	48*	110	109	111	1
04	BLKCHK	97	93	90	96	0
05						
06						
07						
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### QC LIMITS

SMC1 = Dibromofluoromethane (70-130)  
 SMC2 (DCE) = 1,2-Dichloroethane-d4 (70-130)  
 SMC3 (TOL) = Toluene-d8 (70-130)  
 OTHER (BFB) = Bromofluorobenzene (70-130)

# Column to be used to flag recovery values

\* Values outside of contract required QC limits

## RPP-RPT-40709 Rev. 1

FORM 2  
WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name:

Contract:

Lab Code:

Case No.:

SAS No.:

SDG No.: AW106EVAP3

	CHG SAMPLE NO.	S1 (FBP) #	S2 (2FP) #	S3 (NBZ) #	S4 #	S5 (TBP) #	S6 (TPH) #	S7 #	S8 #	TOT OUT
01	BLANK	71	78	88	82	88	89			0
02	LCS	67	82	86	84	88	91			0
03	S09T001797MS	71	0*	86	0*	2*	79			3
04	S09T001797MS	68	0*	84	0*	0*	73			3
05	S09T001797	91	0*	87	0*	0*	93			3
06	S09T001753	83	82	92	88	88	98			0
07	S09T001764	88	88	94	92	90	104			0
08	S09T001769	88	86	90	88	91	104			0
09	S09T001785	135	0*	75	0*	2*	77			3
10	S09T001809	119	0*	71	0*	0*	74			3
11										
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## QC LIMITS

S1 (FBP) = 2-Fluorobiphenyl (50-150)  
 S2 (2FP) = 2-Fluorophenol (50-150)  
 S3 (NBZ) = Nitrobenzene-d5 (50-150)  
 S4 = Phenol-d6 (50-150)  
 S5 (TBP) = 2,4,6-Tribromophenol (50-150)  
 S6 (TPH) = Terphenyl-d14 (50-150)

# Column to be used to flag recovery values

\* Values outside of contract required QC limits

D Surrogate diluted out

# RPP-RPT-40709 Rev. 1

2E  
WATER PESTICIDE SURROGATE RECOVERY

Lab Name:

Contract:

Lab Code:

Case No.:

SAS No.:

SDG No.: PCBAW106EVAP3

GC Column(1): RESTEK XTI-5 ID: 0.25 (mm)

	EPA SAMPLE NO.	S1 %REC #	TCX %REC #	S3 %REC #	S4 %REC #	S5 %REC #	S6 %REC #	TOT OUT
01	BLANK	87	22					0
02	LCS	84	24					0
03	S09T001775	70	19*					1
04	S09T001775MS	63	15*					1
05	S09T001775MS	66	26					0
06	S09T001754	91	21*					1
07	S09T001765	90	33					0
08	S09T001786	53	33					0
09	S09T001798	67	32					0
10	S09T001810	75	21*					1
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## ADVISORY QC LIMITS

S1 = Decachlorobiphenyl (DC (19-145)

S2 (TCX) = Tetrachloro-m-Xylene (21-106)

# Column to be used to flag recovery values

\* Values outside of QC limits

D Surrogate diluted out

Attachment 5

TENTATIVELY IDENTIFIED COMPOUNDS

12-May-2009 15:4604  
DSRTICHardcopy 2.7.26a  
DSR.Jar v. 2.7.26a

**AW106 EVAP3**  
**Opportunistic Analyte Results**

**Sample Group: 20090162**

**Riser: 014**

**Segment Number: 6AW-08-01FB1**

**Segment Portion: Field Blank**

Sample#	R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S09T001752				Methylene Chloride			ug/L	1.59	BJ
S09T001752			BLNK	Methylene Chloride			ug/L	1.83	

NA = Not Analyzed, ND = Not Detected

B - Found in Blank

J - Estimated

N - Named TIC

T - Tentatively Identified Compound

U - Less Than Detection Limit

12-May-2009 15:4604  
DSRTICHardcopy 2.7.26a  
DSR.Jar v. 2.7.26a

**AW106 EVAP3**  
**Opportunistic Analyte Results**

**Sample Group: 20090162**

**Riser: 014**

**Segment Number: 6AW-08-01FB2**

**Segment Portion: Field Blank**

Sample#	R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S09T001757				Methylene Chloride			ug/L	62.6	BJ
S09T001757			BLNK	Methylene Chloride			ug/L	1.83	

B - Found in Blank  
U - Less Than Detection Limit

J - Estimated

N - Named TIC

NA = Not Analyzed, ND = Not Detected

T - Tentatively Identified Compound

12-May-2009 15:4604  
DSRTICHardcopy 2.7.26a  
DSR.Jar v. 2.7.26a

**AW106 EVAP3**  
**Opportunistic Analyte Results**

**Sample Group: 20090162**

**Riser: 014**

**Segment Number: 6AW-08-01TB**

**Segment Portion: Trip Blank**

Sample#	R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S09T001768				Methylene Chloride			ug/L	2.64	B
S09T001768			BLNK	Methylene Chloride			ug/L	1.83	

NA = Not Analyzed, ND = Not Detected

B - Found in Blank

J - Estimated

N - Named TIC

T - Tentatively Identified Compound

U - Less Than Detection Limit



12-May-2009 15:4604  
DSRTICHardcopy 2.7.26a  
DSR.Jar v. 2.7.26a

**AW106 EVAP3**  
**Opportunistic Analyte Results**

**Sample Group: 20090162**

**Riser: 014**

**Segment Number: 6AW-08-02A**

**Segment Portion: Grab Sample (Total)**

Sample#	R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S09T001777				Tetrahydrofuran			ug/L	90.5	J
S09T001777				Methylene Chloride			ug/L	61.7	BJ
S09T001777			BLNK	Methylene Chloride			ug/L	1.83	

NA = Not Analyzed, ND = Not Detected

B - Found in Blank

J - Estimated

N - Named TIC

T - Tentatively Identified Compound

U - Less Than Detection Limit

12-May-2009 15:4604  
DSRTICHardcopy 2.7.26a  
DSR.Jar v. 2.7.26a

**AW106 EVAP3**  
**Opportunistic Analyte Results**

**Sample Group: 20090162**

**Riser: 014**

**Segment Number: 6AW-08-02B**

**Segment Portion: Grab Sample (Total)**

Sample#	R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S09T001785		O		2,4-Dinitrophenol			ug/L	550	T
S09T001785		O		Methane, dichloronitro	7119-89-3	4.33	ug/L	3.04E+03	JNT
S09T001785		O		Butanoic acid	107-92-6	4.85	ug/L	1.44E+04	JNT
S09T001785		O		Unknown-1		5.26	ug/L	2.65E+03	JT
S09T001785		O		Unknown-2		5.46	ug/L	3.02E+03	JT
S09T001785		O		3-methyl-1-nitrobut-2-	0-00-0	5.65	ug/L	2.04E+04	JNT
S09T001785		O		Phosgene oxime	1794-86-1	5.75	ug/L	7.51E+03	JNT
S09T001785		O		Butyrolactone	96-48-0	6.23	ug/L	1.29E+03	JNT
S09T001785		O		Unknown-3		6.28	ug/L	5.49E+03	JT
S09T001785		O		Unknown-4		6.50	ug/L	7.76E+03	JT
S09T001785		O		Unknown-5		6.54	ug/L	1.73E+04	JT
S09T001785		O		Unknown-6		6.85	ug/L	1.37E+03	JT
S09T001785		O		Hexanoic acid	142-62-1	6.88	ug/L	1.18E+03	JNT
S09T001785		O		Unknown-7		7.14	ug/L	1.55E+03	JT
S09T001785		O		Heptanoic acid	111-14-8	7.96	ug/L	1.65E+03	JNT
S09T001785		O		Unknown-8		8.70	ug/L	5.20E+03	JT
S09T001785		O		2-NITROPHENOL-D4	0-00-0	8.86	ug/L	885	JNT
S09T001785		O		Octanoic Acid	124-07-2	9.00	ug/L	1.43E+03	JNT
S09T001785		O		Unknown-9		12.05	ug/L	3.72E+03	JT
S09T001785		O		Unknown-10		14.24	ug/L	1.21E+03	JT
S09T001785		O		Unknown-11		17.24	ug/L	1.02E+03	JT

NA = Not Analyzed, ND = Not Detected

B - Found in Blank  
U - Less Than Detection Limit

J - Estimated

N - Named TIC

T - Tentatively Identified Compound

12-May-2009 15:4604  
DSRTICHardcopy 2.7.26a  
DSR.Jar v. 2.7.26a

**AW106 EVAP3**  
**Opportunistic Analyte Results**

**Sample Group: 20090162**

**Riser: 014**

**Segment Number: 6AW-08-03A**

**Segment Portion: Grab Sample (Total)**

Sample#	R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S09T001789				Tetrahydrofuran			ug/L	76.0	J
S09T001789				Methylene Chloride			ug/L	68.0	B
S09T001789			BLNK	Methylene Chloride			ug/L	1.83	

B - Found in Blank  
U - Less Than Detection Limit

J - Estimated

N - Named TIC

NA = Not Analyzed, ND = Not Detected

T - Tentatively Identified Compound

AW106 EVAP3  
Opportunistic Analyte Results

Sample Group: 20090162

Riser: 014

Segment Number: 6AW-08-03B

Segment Portion: Grab Sample (Total)

Sample#	R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S09T001797		O		2,4-Dinitrophenol			ug/L	521	T
S09T001797		O		Methane, dichloronitro	7119-89-3	4.33	ug/L	3.42E+03	JNT
S09T001797		O		Butanoic acid	107-92-6	4.85	ug/L	1.53E+04	JNT
S09T001797		O		Unknown-1		5.26	ug/L	2.88E+03	JT
S09T001797		O		Unknown-2		5.46	ug/L	2.07E+03	JT
S09T001797		O		3-methyl-1-nitrobut-2-	0-00-0	5.66	ug/L	2.41E+04	JNT
S09T001797		O		Phosgene oxime	1794-86-1	5.74	ug/L	7.22E+03	JNT
S09T001797		O		Unknown-3		6.07	ug/L	1.14E+03	JT
S09T001797		O		Butyrolactone	96-48-0	6.23	ug/L	1.50E+03	JNT
S09T001797		O		Unknown-4		6.28	ug/L	4.22E+03	JT
S09T001797		O		Unknown-5		6.50	ug/L	8.98E+03	JT
S09T001797		O		Unknown-6		6.54	ug/L	1.25E+04	JT
S09T001797		O		Unknown-7		6.85	ug/L	1.69E+03	JT
S09T001797		O		Unknown-8		7.14	ug/L	1.48E+03	JT
S09T001797		O		Heptanoic acid	111-14-8	7.96	ug/L	1.72E+03	JNT
S09T001797		O		Unknown-9		8.70	ug/L	3.73E+03	JT
S09T001797		O		2-NITROPHENOL-D4	0-00-0	8.86	ug/L	1.18E+03	JNT
S09T001797		O		Unknown-10		9.00	ug/L	1.54E+03	JT
S09T001797		O		Unknown-11		12.05	ug/L	2.28E+03	JT
S09T001797		O		Unknown-12		12.14	ug/L	675	JT
S09T001797		O		Unknown-13		17.24	ug/L	798	JT

NA = Not Analyzed, ND = Not Detected

B - Found in Blank  
U - Less Than Detection Limit

J - Estimated

N - Named TIC

T - Tentatively Identified Compound

AW106 EVAP3  
Opportunistic Analyte Results

Sample Group: 20090163

Riser: 019

Segment Number: 6AW-08-04B

Segment Portion: Grab Sample (Total)

Sample#	R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S09T001801				Methylene Chloride			ug/L	14.8	BJ
S09T001801				Tetrahydrofuran			ug/L	72.2	J
S09T001801			BLNK	Methylene Chloride			ug/L	0.682	J
S09T001809	O			2,4-Dinitrophenol			ug/L	550	T
S09T001809	O			Methane, dichloronitro	7119-89-3	4.33	ug/L	3.12E+03	JNT
S09T001809	O			Butanoic acid	107-92-6	4.86	ug/L	1.51E+04	JNT
S09T001809	O			Unknown-1		5.26	ug/L	3.13E+03	JT
S09T001809	O			Unknown-2		5.46	ug/L	2.50E+03	JT
S09T001809	O			3-methyl-1-nitrobut-2-	0-00-0	5.65	ug/L	2.24E+04	JNT
S09T001809	O			Phosgene oxime	1794-86-1	5.77	ug/L	6.07E+03	JNT
S09T001809	O			Unknown-3		6.07	ug/L	1.26E+03	JT
S09T001809	O			Butyrolactone	96-48-0	6.23	ug/L	1.30E+03	JNT
S09T001809	O			Unknown-4		6.28	ug/L	5.14E+03	JT
S09T001809	O			Unknown-5		6.50	ug/L	8.93E+03	JT
S09T001809	O			Unknown-6		6.54	ug/L	1.50E+04	JT
S09T001809	O			Unknown-7		6.85	ug/L	1.54E+03	JT
S09T001809	O			Unknown-8		7.14	ug/L	1.62E+03	JT
S09T001809	O			Heptanoic acid	111-14-8	7.97	ug/L	1.83E+03	JNT
S09T001809	O			Unknown-9		8.71	ug/L	5.66E+03	JT
S09T001809	O			2-NITROPHENOL-D4	0-00-0	8.86	ug/L	974	JNT
S09T001809	O			Octanoic Acid	124-07-2	9.01	ug/L	1.45E+03	JNT
S09T001809	O			Unknown-10		12.06	ug/L	3.56E+03	JT
S09T001809	O			Unknown-11		14.24	ug/L	1.19E+03	JT
S09T001809	O			Unknown-12		17.24	ug/L	1.56E+03	JT

NA = Not Analyzed, ND = Not Detected

B - Found in Blank

J - Estimated

N - Named TIC

T - Tentatively Identified Compound

U - Less Than Detection Limit

**Attachment 6**

**CORRESPONDENCE**

<b>CHARACTERIZATION DATA DEFICIENCY FORM (DDF)</b>	
<b>Name of Submitter:</b>	Juergen Rasmussen
<b>DDF Number:</b>	<to be entered by PNNL TWINS Technician>
<b>Date of DDF:</b>	9-14-09
<b>Title of DDF:</b>	AW-106 March 2007 sample data corrections
<b>Description of Problem:</b>	A number of discrepancies between X and the data uploaded to TWINS need to be corrected.
<b>Data and Information to be Corrected:</b>	<ol style="list-style-type: none"> <li>1) U qualifier is missing from duplicate results for Ni and Si (no "&lt;" symbol in report), in sample S09T001773.</li> <li>2) U qualifier should be applied to TOC blank result for S09T001783, since it is a difference between a nondetected total carbon and a nondetected total inorganic carbon result.</li> <li>3) In the data summary report, CAS numbers for TC, TOC, TIC, DSC-02, DSC-01, VOL % SETS, U-238, SR-89/90, PU-238/240, ORGVOL, MASS, PH, CM-243/244, RURH-106, and other radchem analytes are missing and are replaced with analytical method identifiers. Replace with CAS#'s or leave blank if not available.</li> <li>4) Report should not have a "&lt;" symbol for gross alpha duplicate result for S09T001796, since result is more than twice the detection limit, and is greater than the primary result which does not have a "&lt;" symbol.</li> <li>5) U-233 duplicate result should have J qualifier for S09T001796.</li> <li>6) J qualifier is missing from gross alpha duplicate result for S09T001796.</li> <li>7) J qualifier is missing from Fe, Ni, Mo, and K duplicate results for S09T001773.</li> <li>8) J qualifier is missing from Hg duplicate result for S09T001794. The Hg result is less than the corresponding primary Hg result, which is J-flagged.</li> <li>9) TCD has a 10.05 unitless Standard Recovery for pH for S09T001772. Standard recovery field is blank in the data summary report.</li> <li>10) "B" qualifier should be applied to <sup>237</sup>Np radchem result for S09T001796 in analytical report and TCD. Blank is over 10% of result.</li> </ol>
<b>Assignment for Making Corrections:</b>	<input checked="" type="checkbox"/> lab (222-S items 1, 2, 3, 4, and 10) <input checked="" type="checkbox"/> PNNL TWINS Project
<b>Priority of Item:</b>	<high or low>
<b>Target Due Date:</b>	
<b>Distribution:</b>	Submitter TWINS Lead PNNL TWINS Technician Laboratory Project Manager and/or Project Coordinator as needed Others as needed

**From:** Bushaw, Ruth A  
**To:** Reynolds, Jacob G  
**Cc:** Menjivar, Carolina S; Hansen, Daniel R  
**Subject:** FW: AW106 EVAP 3- Data Deficiency Form (DDF) - Corrected  
**Date:** Monday, August 22, 2011 3:17:05 PM  
**Attachments:** 6AW CHARACTERIZATION DATA DEFICIENCY FORM.doc  
image003.png

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Jake,

Carolina Menjivar is working to get out the reissue of the AW106 EVAP 3 report from 2007 based on the attached DDF from Juergen. I'm forwarding this to you, in Juergen's absence, to make you aware that many of our responses to the DDF are that we (ATL) do not apply "J" flags to duplicate results. ATL has never applied flags to duplicate results.

The OmniLIMS administrator indicated that a "U" flag is applied to the duplicate results, but will check to see if "J" flags will also get applied when the TCD upload file is generated.

I looked at the TWINS database for about 6 or 7 tanks. The only duplicate results from 222S with flags other than "U" were pH measurements that had "J" to indicate results >13.5. As far as I know, that flag is applied automatically. In the future, pH results >13 will be flagged with an "E".

At this point, we were not planning to start manually applying flags to duplicate results, so the reissue will still not contain "J" flags on the duplicate results indicated in the DDF.

I hope this will be acceptable.

Thanks,

**Ruth A. Bushaw**

Project Manager  
Advanced Technologies and Laboratories International, Inc.  
Contractor to the Office of River Protection  
U.S. Department of Energy 222-S Laboratory  
373-4314

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**From:** Menjivar, Carolina S  
**Sent:** Thursday, August 18, 2011 4:25 PM  
**To:** Rasmussen, Juergen H; Harrington, Stephanie J  
**Cc:** Bushaw, Ruth A  
**Subject:** FW: AW106 EVAP 3- Data Deficiency Form (DDF) - Corrected

Please see corrections for e-mail previously sent.

Thanks,

*Carolina S. Menjivar*

Project Manager  
Advanced Technologies and Laboratories International, Inc.  
Contractor to the Office of River Protection  
U.S. Department of Energy



2704S/31B/200W  
509-372-2525



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**From:** Menjivar, Carolina S  
**Sent:** Thursday, August 18, 2011 3:27 PM  
**To:** Rasmussen, Juergen H  
**Cc:** Harrington, Stephanie J; Bushaw, Ruth A  
**Subject:** AW106 EVAP 3- Data Deficiency Form (DDF)

Juergen,

I have been assigned the task to review each of the items contained in the data deficiency form for project AW106 EVAP 3 (see attached file), and then proceed with the next step which is the reissue of the analytical report. But before I continue with this process I would like to give you an update. The following is a summary of the review performed, please feel free to call me or to e-mail me if you have any questions.

- 1- U qualifier is missing from duplicate results for Ni and Si (no "<" symbol in report), in sample S09T001773.

**ANSWER:** In the raw data, the duplicate results for nickel and silicon were above the detection limits in sample S09T001773. Therefore, there is no need for "<" symbol in report.

In addition, ATL does not apply U flags to duplicate results. See below:

Sample results for nickel:

S09T001773: 10.90031µg/mL, reported in OmniLIMS as 1.0900E+01 µg/mL

S09T001773 DUP: 8.32552µg/mL , reported in OmniLIMS as 8.3255E+00µg/mL

Detection limit for nickel is 8µg/mL .

Sample results for silicon:

S09T001773: 11.06417µg/mL, reported in OmniLIMS as < 1.2000E+01 µg/mL

S09T001173 DUP: 12.04904µg/mL, reported in OmniLIMS as 1.2049E+01 µg/mL

Detection limit for silicon is 12µg/mL

- 2- U Qualifier should be applied to TOC blank for S09T001783, since it is a difference between a nondetected total carbon and a non detected total inorganic carbon result.

**ANSWER:** ATL does not apply U flags to blank results. U Flags are applied to sample results to indicate that the analyte concentration in the sample is less than detection limit. In addition, Total organic carbon (TOC) is not calculated by difference, it is a direct measurement. The analysis is performed by introducing a small volume (~ 200 µl) of sample into a combustion furnace as described in Procedure ATL- LA-344-105 Rev. K-0.

- 3- In the data summary report, CAS numbers for TC, TOC, TIC, DSC-02, DSC-01, VOL % SETS, U-238, SR-89/90, PU-238/240, ORGVOL, MASS, PH, CM-243/244, RURH-106, and other radchem analytes are missing and are replaced with analytical method identifiers. Replace with CAS#'s or leave blank if not available.

**ANSWER:** A request was sent to Harold Baker for him to evaluate the possibility of fixing this issue in OmniLims. A new data summary report will be provided to customer with the reissue of the report.

- 4- Report should not have a "<" symbol for gross alpha duplicate result for S09T001796, since result is more than twice the detection limit, and is greater than the primary result which does not have a "<" symbol.

**ANSWER:** Both of the results are near the detection limits; however, the total counts for the sample are statistically above the critical level  $L_c$  and therefore considered positive result. The duplicate counts are lower and the result is below  $L_c$ . Therefore, the detection limit is calculated using  $R_{(max)}$ , which is greater than  $L_c$  leading to a detection limit that is higher than the detection limit for the sample. In this specific case, the gross alpha result for the sample S09T001796 is positive, in other words, greater than detection limit and the gross alpha result for the duplicate is less than the detection limit of the duplicate. See Procedure ATL LQ-508-102 Rev. D-0. No change is needed in the data summary report.

**Note:**  $L_c$  is the critical level, which is the quantity or concentration which must be exceeded before a sample can be said to contain any activity above background level.  $R_{max}$  is a less than value which is the sum of the net sample count rate (cpm) plus the one sided 95% confidence interval constructed about the net sample count rate.

- 5- U-233 duplicate result should have J qualifier for S09T001796.

**ANSWER:** ATL does not apply flags to duplicate sample results only to primary results.

- 6- J qualifier is missing from gross alpha duplicate result for S09T001796.

**ANSWER: ATL does not apply flags to duplicate sample results only to primary results.**

- 7- J qualifier is missing from Fe, Ni, Mo, and K duplicate results for S09T001773.

**ANSWER: ATL does not apply flags to duplicate sample results only to primary results.**

- 8- J qualifier is missing from Hg duplicate result for S09T001794. The Hg result is less than the corresponding primary Hg result, which is J-flagged.

**ANSWER: ATL does not apply flags to duplicate sample results only to primary results.**

- 9- TCD has a 10.05 unitless Standard Recovery for pH for S09T001772. Standard recovery field is blank in the data summary report.

**ANSWER: There has never been a standard recovery for pH. See Procedure ATL LA-212-106 Rev. G-0. Data Summary Report is correct. The error could be happening during the TCD upload.**

- 10- "B" qualifier should be applied to  $^{237}\text{Np}$  radchem result for S09T001796 in analytical report and TCD. Blank is over 10% of result.

**ANSWER: Yes, "B" qualifier will be applied to  $^{237}\text{Np}$  radchem results. A new data summary report will be provided to customer with the reissue of the report.**

As soon as the items that need to be resolved are complete, a reissue of the analytical report will be provided.

Thanks,

*Carolina S. Menjivar*

Project Manager  
Advanced Technologies and Laboratories International, Inc.  
Contractor to the Office of River Protection  
U.S. Department of Energy  
2704S/31B/200W  
509-372-2525



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**From:** Menjivar, Carolina S  
**To:** Rasmussen, Juergen H  
**Cc:** Harrington, Stephanie J; Bushaw, Ruth A; Reynolds, Jacob G  
**Subject:** FW: Data Summary Report for AW106 EVAP 3  
**Date:** Tuesday, August 23, 2011 7:30:00 AM  
**Attachments:** 6AW CHARACTERIZATION DATA DEFICIENCY FORM.doc  
image003.png

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Regarding item # 3 on the Data Deficiency Form (DDF) for AW106 EVAP103 ( see attached file), please see Harold Baker's response (see e-mail below).

Thanks,

*Carolina S. Menjivar*

Project Manager  
Advanced Technologies and Laboratories International, Inc.  
Contractor to the Office of River Protection  
U.S. Department of Energy  
2704S/31B/200W  
509-372-2525



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**From:** Baker, Harold L  
**Sent:** Monday, August 22, 2011 9:27 AM  
**To:** Menjivar, Carolina S  
**Cc:** Prilucik, John R; Kerns, Robert E  
**Subject:** RE: Data Summary Report for AW106 EVAP 3

These are not the method names they are the suto cas numbers that we have put into OmniLIMS. These cas numbers are based on that was needed to put the data into TCD and for the most part were given to us by the Tank Coordinators or we have translated ours to what they wanted. The blank ones are just ones that we haven't established a suto cas number for. I can add them if I know what they would like to see there.

Thanks

*Harold L. Baker*

Phone: 509-373-6979  
Cell: 509-366-9172  
E-mail: [Harold\\_L\\_Baker@rl.gov](mailto:Harold_L_Baker@rl.gov)

Washington River Protection Solutions.

contractor to the United States Department of Energy

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**From:** Menjivar, Carolina S  
**Sent:** Monday, August 22, 2011 9:19 AM  
**To:** Baker, Harold L  
**Subject:** RE: Data Summary Report for AW106 EVAP 3

Harold,

The attached file contains a copy of the data summary report for AW106 EVAP 3 project. The tank coordinator is requesting to correct the CAS #s where the method is listed instead of the CAS #s, or if the CAS# is not available to leave the space blank.

Thanks,

*Carolina S. Menjivar*

Project Manager  
Advanced Technologies and Laboratories International, Inc.  
Contractor to the Office of River Protection  
U.S. Department of Energy  
2704S/31B/200W  
509-372-2525

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**From:** Baker, Harold L  
**Sent:** Monday, August 22, 2011 9:07 AM  
**To:** Menjivar, Carolina S  
**Subject:** RE: Data Summary Report for AW106 EVAP 3

See below

Thanks

*Harold L. Baker*

**Phone:** 509-373-6979  
**Cell:** 509-366-9172  
**E-mail:** Harold\_L\_Baker@rl.gov

Washington River Protection Solutions.  
contractor to the United States Department of Energy

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**From:** Menjivar, Carolina S  
**Sent:** Thursday, August 18, 2011 2:59 PM  
**To:** Baker, Harold L  
**Subject:** Data Summary Report for AW106 EVAP 3

Harold,

I am in the process of preparing a reissue of the final analytical report for AW106 EVAP3. But before I can proceed, I need your help. Please see the attached files containing a Data Deficiency Form with a list of discrepancies from the Tank Coordinator. I have reviewed each of the issues listed on this form and have the following items to discuss with you:

- Item # 3 on the Data Deficiency Form needs to be fixed in OmniLIMS so that all the CAS numbers are listed or left blank if the CAS number for certain analyte is not available. Will you be able to fix this error in OmniLIMS? I run a new data summary report on 08/11/2011 and we still have several missing CAS numbers or listing the method instead of the CAS number. Send me a copy of the DSR report. I do not know why we are not getting the CAS numbers, I need to see what specifically you are talking about.
- Items # 1, 5,6,7, and 8 is a request for duplicate results to have qualifier flags. Do you know if the TCD upload takes care of this? We do not apply qualifier flags to duplicate results, so the DSR is not supposed to display any flags for dups. TCD only brings in what is in the database if they want DUPs flagged you will need to flag them.
- Item # 2 is a request for the blank results to be flagged also. Do you know if the TCD upload takes care of this? Again, we do not apply flags to blank results, so the DSR is not supposed to display any flags for blank results. TCD only brings in what is in the database if they want blanks flagged you will need to flag them.

NOTE: Project AW106 EVAP 3 includes sample groups 20090162 and 20090163.

Please advise.

Thanks,

*Carolina S. Menjivar*

Project Manager  
Advanced Technologies and Laboratories International, Inc.  
Contractor to the Office of River Protection  
U.S. Department of Energy  
2704S/31B/200W  
509-372-2525

## CHARACTERIZATION CHANGE NOTICE

Document: RPP-PLAN-39120 R0 Change Number: 09-CCN-04 DRF to TSAP Required? NoRequestor: J. H. Rasmussen Date: 03-12-2009

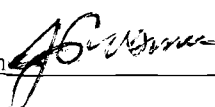
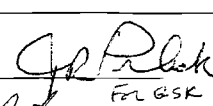
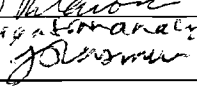
Samples Impacted: 6AW-08-04A and 6AW-08-04B.

**Proposed Change:** Obtain VOA subsamples from sample 6AW-08-04B instead of 6AW-08-04A in section 4.1. Sample 6AW-08-04A was lost when the bottle broke during hot cell handling. Describe 6AW-08-04B VOA subsampling in analytical report narrative, and note how long 6AW-08-04B was open prior to VOA subsampling, and estimate how much headspace was in the bottle at the time.

Date Change Effective: 3-12-2009.

Schedule Impact: None.

## Authorization:

Tank Coordinator: J. H. Rasmussen  Date: 3-12-09Sampling: N/A does not affect sampling Date: \_\_\_\_\_222-S Sample Management Office: JR: Production  Date: 3/12/09ATL Project Manager: GPA Jensen  Date: 3/12/09Other: Corrosion Mitigation Controls / W. J. Powell  Date: 3-12-09Other: Evaporator / J. M. Conner  Date: 3/12/09Other: Environmental / T. L. Faust  Date: 3-12-09

cc: D. M. Nytko; R. A. Bushaw

## CHARACTERIZATION CHANGE NOTICE

Document: RPP-PLAN-39120, R. 0 Change Number: 09-CCN-07 DRF to TSAP Required? noRequestor: J. H. Rasmussen Date: 5-11-09

**Samples Impacted:** All surface, subsurface, field blank, and trip blank samples identified for semivolatile organic analysis and  $^{237}\text{Np}$  analysis.

**Proposed Change:** 1) Add 2-butoxyethanol to semivolatile organic analytes by GC/MS. It is anticipated that this analyte will be added to future revisions of the DQO. The following QC requirements apply:

LCS % Recovery	Spike % Recovery	Duplicate RPD
70 - 130%	30 - 110%	$\leq 20\%$

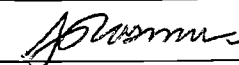
2) Add  $^{237}\text{Np}$  to ICP/MS analytes. Apply same QC limits as those for  $^{99}\text{Tc}$  by ICP/MS, except perform a matrix duplicate instead of a matrix spike duplicate. The laboratory has proposed replacing radiochemical  $^{237}\text{Np}$  method with ICP/MS. Analysis by both methods provides a basis for comparison to evaluate the proposed change.

Date Change Effective: 5/11/09.

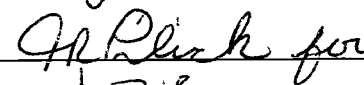
Schedule Impact: None.

## Authorization:

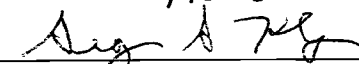
Tank Coordinator:

Date: 5/11/09Sampling: N/A does not affect samplingDate: 5/11/09

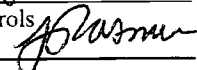
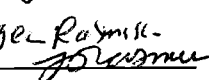
222-S Sample Management Office:

Date: 5/11/09

ATL Project Manager:

Date: 5/11/09

N/A does not affect Corrosion Mitigation Controls

Other: Corrosion Mitigation Controls / W. J. PowellDate: 5/11/09Other: Evaporator / J. M. ConnerDate: 5/11/09

Other: \_\_\_\_\_

Date: \_\_\_\_\_

cc: R. A. Bushaw

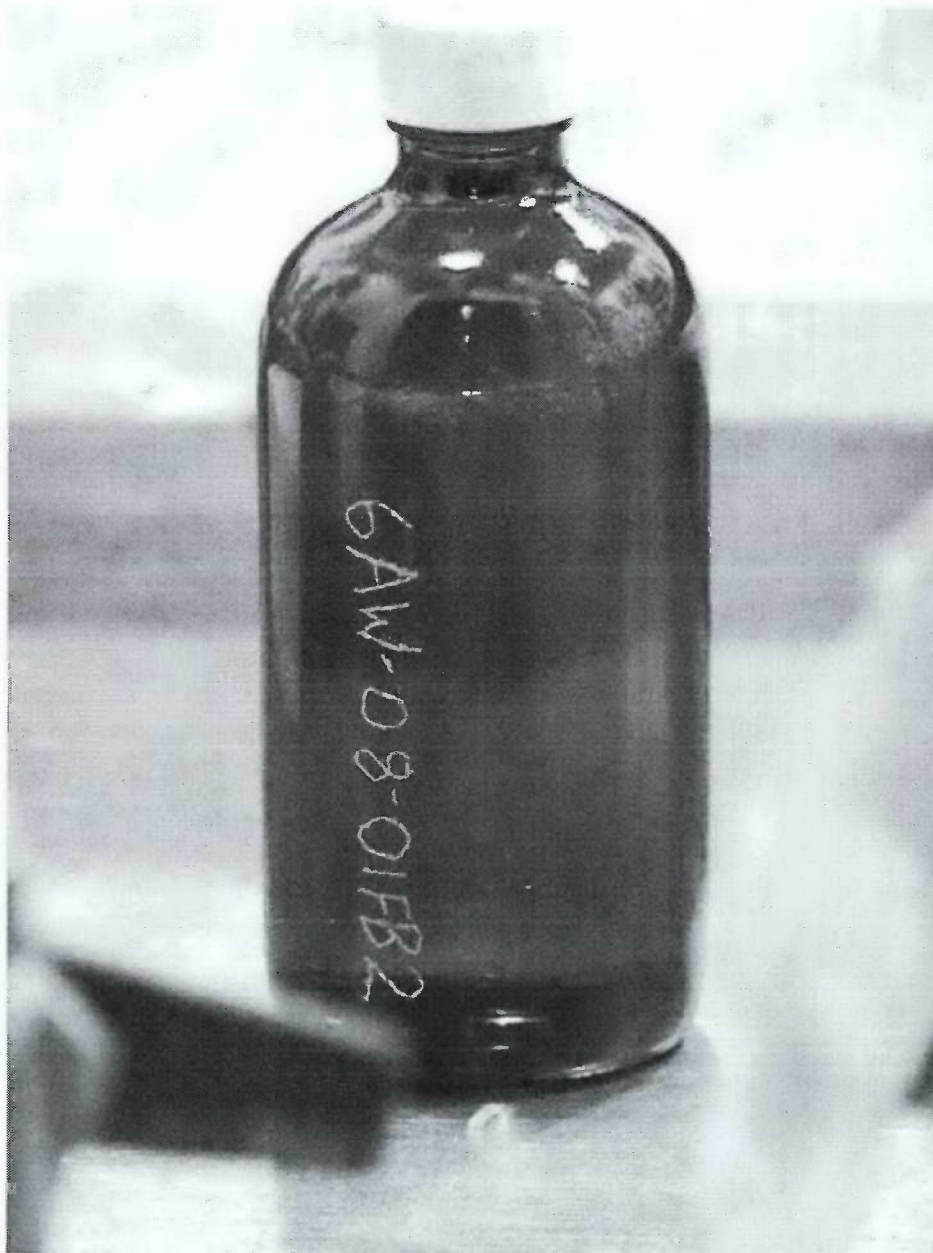


**Attachment 7**

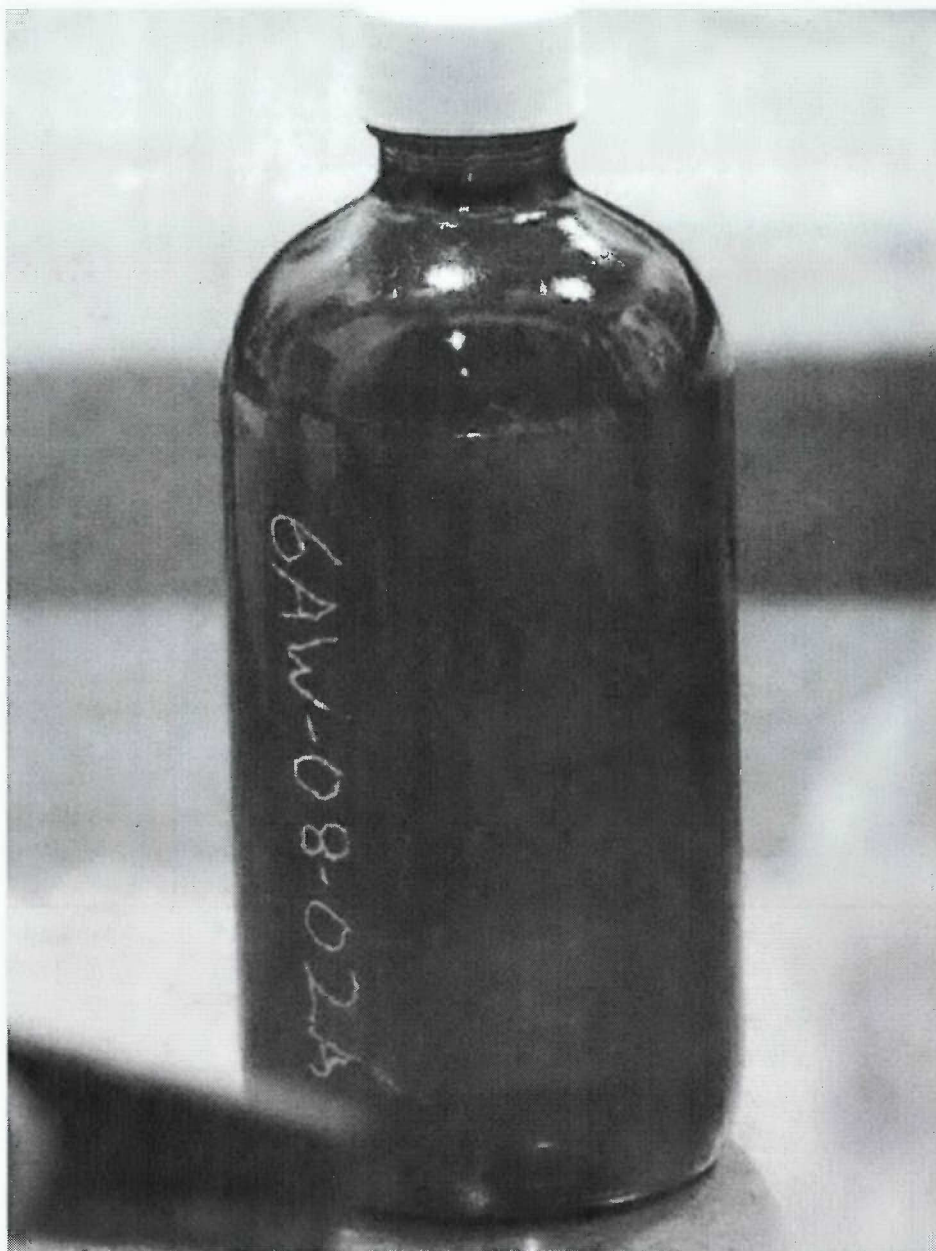
**SAMPLE PHOTOGRAPHS**



AW-106 Grab Sample 1.



AW-106 Field Blank 2.

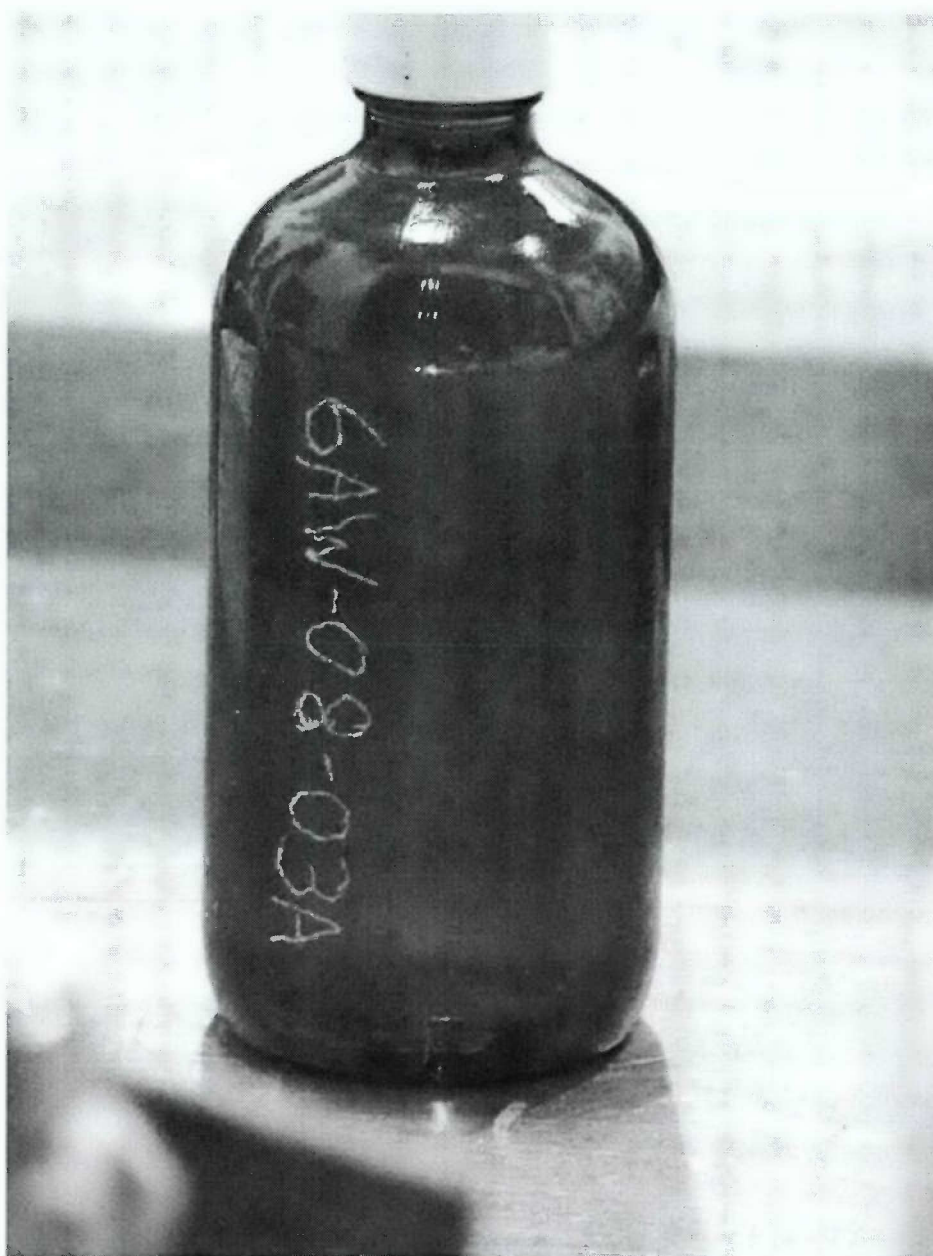


AW-106 Grab Sample 2A.

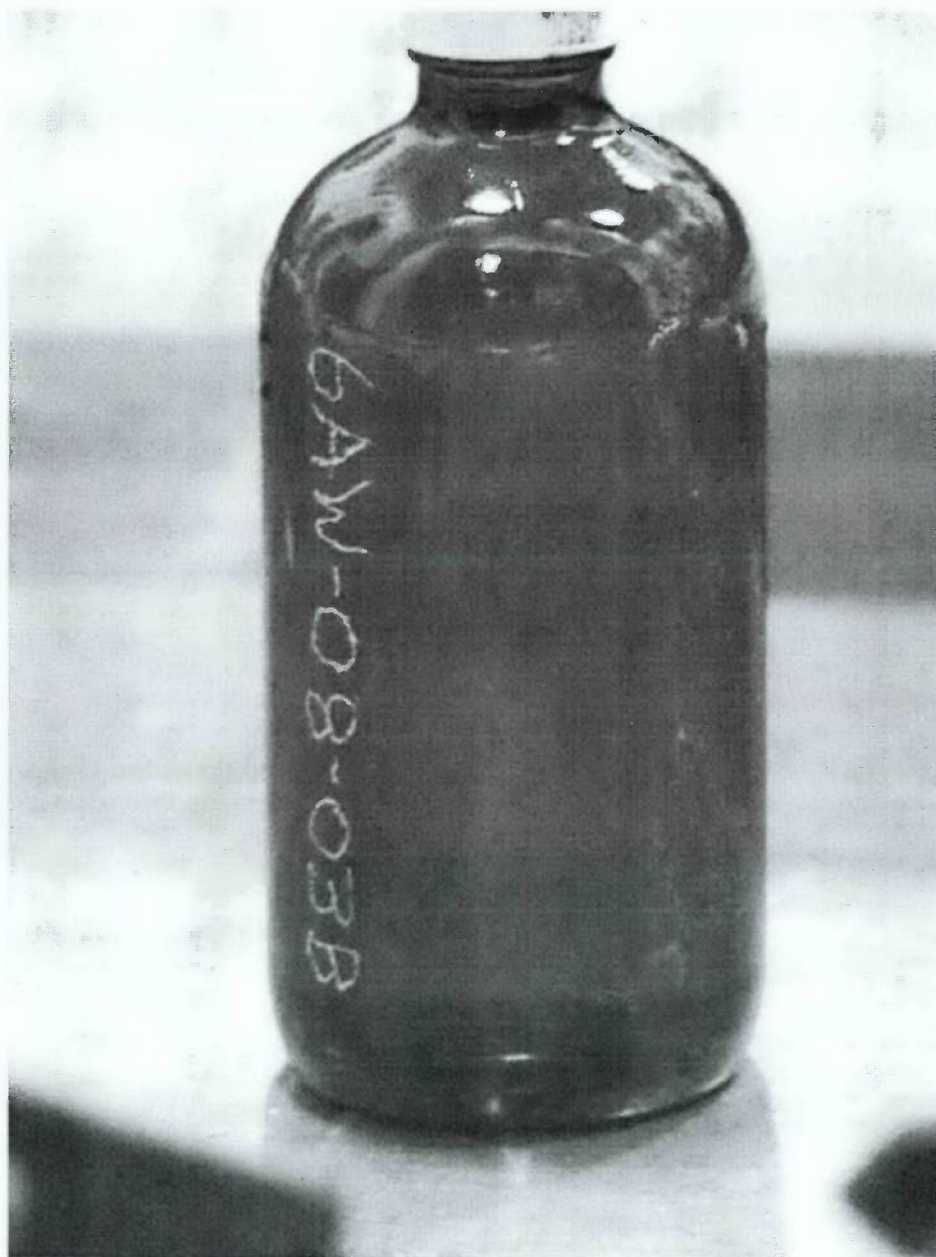


AW-106 Grab Sample 2B.

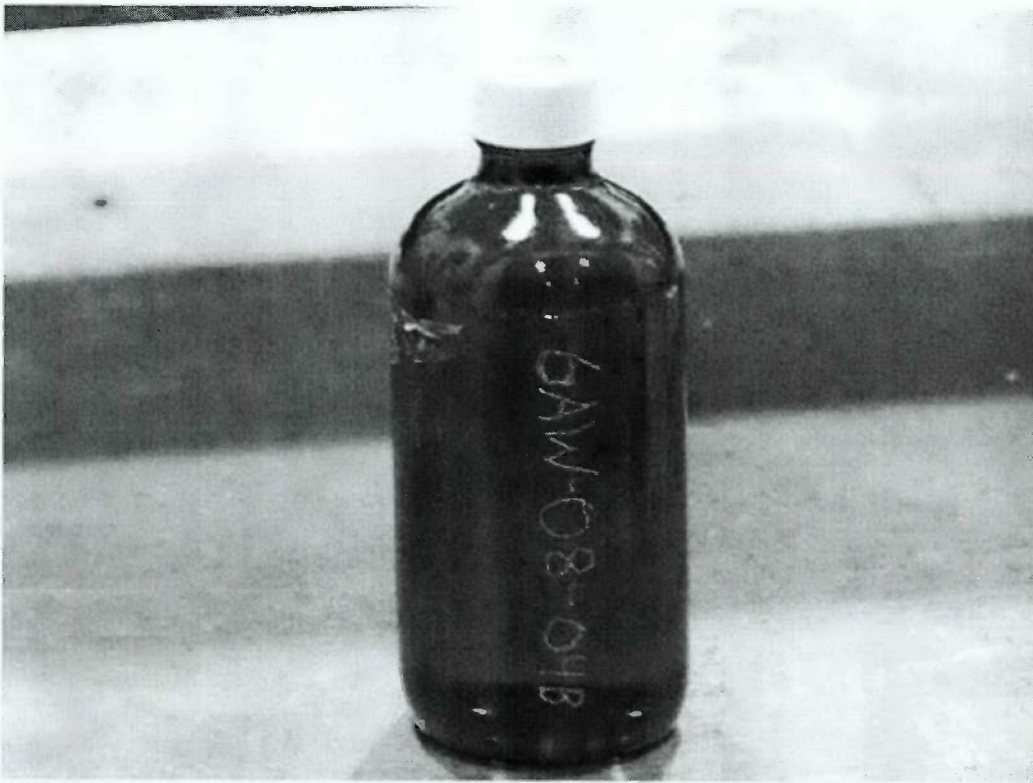




AW-106 Grab Sample 3A Prior to subsampling.



AW-106 Grab Sample 3B Prior to subsampling.



AW-106 Grab Sample 4B Prior to subsampling.



AW-106 Grab Sample 4B After subsampling.



Attachment 8

RECEIPT PAPERWORK

CHAIN-OF-CUSTODY RECORD FOR WTS								
(1) Sample Number 6AW-08-01TB		(2) Supervisor/Sampler R. J. Ruzick			(9) Seal Intact Upon Release? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
(3) Tank AW-106	(4) Riser 14*	(5) Cask/Pig Serial No. 460-35			(10) Seal Intact Upon Receipt? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
(6) Shipment Description: A. Work Package Number WFO-WB-08-1375 B. Cask/Pig Seal Number 10785 C. Date Sample Collected 3-4-09 D. Time Sample Collected 0953hrs			(7) Sampling Data Y N - Lithium Bromide <input type="checkbox"/> <input type="checkbox"/> Amount _____ Concentration _____ - X-Ray <input type="checkbox"/> <input type="checkbox"/> - Partial Sample <input type="checkbox"/> <input type="checkbox"/> Retrieved Partial Sample Stroke Length _____			(11) Seal Number AND Cask/Pig SERIAL Number consistent with this record? (Block 5 & 6b) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
						(12) Laboratory Comments:  509 T00 1767 OMNI ✓		
(8) Field Comments: *TRIP BLANK, NOT LOWERED INTO TANK. B-1-19-09								
(13) Relinquished By (Sign and PRINT) Eric Waldo Eric Waldo		(14) Received By (Sign and PRINT) V.P. Matthews V.P. Matthews		(15) Date/Time 3/5/09 14:05		(16) Receiver Comments N/A		
(17) Relinquished By (Sign and PRINT) V.P. Matthews V.P. Matthews		(18) Received By (Sign and PRINT) T. E. Block T. E. Block		(19) Date/Time 3/5/09 1445		(20) Receiver Comments		
(21) Relinquished By (Sign and PRINT)		(22) Received By (Sign and PRINT)		(23) Date/Time		(24) Receiver Comments		
(25) Relinquished By (Sign and PRINT)		(26) Received By (Sign and PRINT)		(27) Date/Time		(28) Receiver Comments		

## CHAIN-OF-CUSTODY RECORD FOR WTS

(1) Sample Number <b>6AW-08-01FB1</b>		(2) Supervisor/Sampler <b>Robert J. Penzance</b>		(9) Seal Intact Upon Release? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
(3) Tank <b>AW-106</b>	(4) Riser <b>14</b>	(5) Cask/Pig Serial No. <b>460-5</b>		(10) Seal Intact Upon Receipt? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
(6) Shipment Description:  A. Work Package Number <b>WFO-WO-08-1375</b>  B. Cask/Pig Seal Number <b>10778</b>  C. Date Sample Collected <b>3-4-09</b>  D. Time Sample Collected <b>1022hrs</b>		(7) Sampling Data Y N - Lithium Bromide <input type="checkbox"/> <input type="checkbox"/>  Amount _____  Concentration _____ - X-Ray <b>NA</b> <input type="checkbox"/> <input type="checkbox"/> - Partial Sample <b>3-19-09</b> <input type="checkbox"/> <input type="checkbox"/>  Retrieved Partial Sample Stroke Length _____		(11) Seal Number AND Cask/Pig SERIAL Number consistent with this record? (Block 5 & 6b) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
				(12) Laboratory Comments:  <b>So 9700 1751 Omni ✓</b>	
(8) Field Comments: <b>Field Blank 3-19-09</b>					
(13) Relinquished By (Sign and PRINT) <b>Eric Waldo Eric Waldo</b>		(14) Received By (Sign and PRINT) <b>V.P. Matthews V.P. Matthews</b>		(15) Date/Time <b>3/5/09 12:55</b>	
(17) Relinquished By (Sign and PRINT) <b>V.P. Matthews V.P. Matthews</b>		(18) Received By (Sign and PRINT) <b>Tracy Collier Tracy Collier</b>		(19) Date/Time <b>3/5/09 1335</b>	
(21) Relinquished By (Sign and PRINT)		(22) Received By (Sign and PRINT)		(23) Date/Time	
(25) Relinquished By (Sign and PRINT)		(26) Received By (Sign and PRINT)		(27) Date/Time	
				(24) Receiver Comments	
				(28) Receiver Comments	

CHAIN-OF-CUSTODY RECORD FOR WTS			
(1) Sample Number <b>6AW-08-01FBZ</b>		(2) Supervisor/Sampler <b>B. Praznik</b>	
(3) Tank <b>AW-106</b>		(4) Riser <b>14</b>	(5) Cask/Pig Serial No. <b>460.23</b>
(6) Shipment Description:		(7) Sampling Data	
A. Work Package Number <b>WFO-WO-08-1375</b>		- Lithium Bromide <input type="checkbox"/> Y <input type="checkbox"/> N	
B. Cask/Pig Seal Number <b>10779</b>		Amount _____	
C. Date Sample Collected <b>3-4-09</b>		Concentration _____	
D. Time Sample Collected <b>1027hrs</b>		- X-Ray <input type="checkbox"/> <input type="checkbox"/>	
		- Partial Sample <b>NA</b> <input type="checkbox"/> <input type="checkbox"/>	
		- Retrieved Partial Sample Stroke Length _____	
(8) Field Comments: <b>FIELD BLANK 3-1-09</b>		(9) Seal Intact Upon Release? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
		(10) Seal Intact Upon Receipt? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
		(11) Seal Number AND Cask/Pig SERIAL Number consistent with this record? (Block 5 & 6b) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
		(12) Laboratory Comments:  <b>5097001756</b>	
(13) Relinquished By (Sign and PRINT) <b>Eric Waldo Eric Waldo</b>		(14) Received By (Sign and PRINT) <b>V.P. Matthews V.P. Matthews</b>	
(15) Date/Time <b>3/5/09 12:55</b>		(16) Receiver Comments <b>NA</b>	
(17) Relinquished By (Sign and PRINT) <b>V.P. Matthews V.P. Matthews</b>		(18) Received By (Sign and PRINT) <b>Richard T. McCall</b>	
(19) Date/Time <b>3/5/09 1335</b>		(20) Receiver Comments	
(21) Relinquished By (Sign and PRINT)		(22) Received By (Sign and PRINT)	
(23) Date/Time		(24) Receiver Comments	
(25) Relinquished By (Sign and PRINT)		(26) Received By (Sign and PRINT)	
(27) Date/Time		(28) Receiver Comments	

CHAIN-OF-CUSTODY RECORD FOR WTS			
(1) Sample Number <b>6AW-08-01</b>		(2) Supervisor/Sampler <i>R. J. KAZNIK</i>	
(3) Tank <b>AW-106</b>	(4) Riser <b>14</b>	(5) Cask/Pig Serial No. <b>460-7</b>	
(6) Shipment Description:		(7) Sampling Data	
A. Work Package Number <b>NFO-WD-08-1375</b>		- Lithium Bromide <input type="checkbox"/> Y <input type="checkbox"/> N	
B. Cask/Pig Seal Number <b>10780</b>		Amount _____	
C. Date Sample Collected <b>3-4-09</b>		Concentration <b>NA</b> <input type="checkbox"/> Y <input type="checkbox"/> N	
D. Time Sample Collected <b>1036hrs</b>		- X-Ray <input type="checkbox"/> Y <input type="checkbox"/> N	
		- Partial Sample <input type="checkbox"/> Y <input type="checkbox"/> N	
		- Retrieved Partial Sample Stroke Length _____	
(8) Field Comments:		(9) Seal Intact Upon Release? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
SURFACE SAMPLE. <b>3-19-09</b>		(10) Seal Intact Upon Receipt? <input type="checkbox"/> Yes <input type="checkbox"/> No	
• MT.DEW W/BRN TINT. <b>3-4-09</b>		(11) Seal Number AND Cask/Pig SERIAL Number consistent with this record? (Block 5 & 6b) <input type="checkbox"/> Yes <input type="checkbox"/> No	
		(12) Laboratory Comments:	
		5097001770 ✓ OMNI ✓ MARS ✓	
(13) Relinquished By (Sign and PRINT) <i>Eric Waldo</i> Eric Waldo		(14) Received By (Sign and PRINT) <i>BCphill</i> BC-phill	
(17) Relinquished By (Sign and PRINT) <i>B Campbell</i> B Campbell		(18) Received By (Sign and PRINT) <i>Tru G. Noel</i> Tru G. Noel	
(21) Relinquished By (Sign and PRINT)		(22) Received By (Sign and PRINT)	
(25) Relinquished By (Sign and PRINT)		(26) Received By (Sign and PRINT)	
		(15) Date/Time <b>3/4/09</b> <b>13:25</b>	
		(16) Receiver Comments <b>NA</b>	
		(19) Date/Time <b>3-4-09</b> <b>1430</b>	
		(20) Receiver Comments	
		(23) Date/Time	
		(24) Receiver Comments	
		(27) Date/Time	
		(28) Receiver Comments	

CHAIN-OF-CUSTODY RECORD FOR WTS			
(1) Sample Number <b>6AW-08-02A</b>		(2) Supervisor/Sampler <i>[Signature]</i>	
(3) Tank <b>AW-06</b>	(4) Riser <b>14</b>	(5) Cask/Pig Serial No. <b>460-36</b>	(9) Seal Intact Upon Release? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
(6) Shipment Description: A. Work Package Number <b>WFO-WO-08-1375</b> B. Cask/Pig Seal Number <b>10781</b> C. Date Sample Collected <b>34-09</b> D. Time Sample Collected <b>1045h</b>			(10) Seal Intact Upon Receipt? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
(7) Sampling Data - Lithium Bromide <input type="checkbox"/> Y <input type="checkbox"/> N Amount _____ Concentration _____ - X-Ray <input type="checkbox"/> <input type="checkbox"/> - Partial Sample <b>NA</b> <input type="checkbox"/> <input type="checkbox"/> - Retrieved Partial Sample Stroke Length _____			(11) Seal Number AND Cask/Pig SERIAL Number consistent with this record? (Block 5 & 6b) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
(8) Field Comments: <b>AMBER BOTTLE #34-09</b>			(12) Laboratory Comments:  <b>5097001776</b> <b>OMNI ✓</b> <b>MARS ✓</b>
(13) Relinquished By (Sign and PRINT) <i>[Signature]</i> Eric Wally		(14) Received By (Sign and PRINT) <i>[Signature]</i> BC-phill	(15) Date/Time <b>3/5/09</b> <b>9:20</b>
(17) Relinquished By (Sign and PRINT) <i>[Signature]</i> BC-phill		(18) Received By (Sign and PRINT) <i>[Signature]</i> at Steele	(16) Receiver Comments <b>N/A</b>
(21) Relinquished By (Sign and PRINT)		(22) Received By (Sign and PRINT)	(19) Date/Time <b>3.5.09</b> <b>1005</b>
(25) Relinquished By (Sign and PRINT)		(26) Received By (Sign and PRINT)	(20) Receiver Comments <b>N/A</b>
			(23) Date/Time
			(24) Receiver Comments
			(27) Date/Time
			(28) Receiver Comments

CHAIN-OF-CUSTODY RECORD FOR WTS			
(1) Sample Number <b>6AW-08-02B</b>		(2) Supervisor/Sampler <i>RJ. Ruznik</i>	
(3) Tank <b>AW-106</b>		(4) Riser <b>14</b>	(5) Cask/Pig Serial No. <b>460-34</b>
(6) Shipment Description:		(7) Sampling Data	
A. Work Package Number <b>WFO-WO-08-1375</b>		- Lithium Bromide <input type="checkbox"/> Y <input type="checkbox"/> N	
B. Cask/Pig Seal Number <b>10782</b> <i>EJW 3/5/09</i>		Amount _____	
C. Date Sample Collected <b>3-4-09</b>		Concentration _____	
D. Time Sample Collected <b>1050hrs</b>		- X-Ray <b>N/A</b> <input type="checkbox"/> Y <input type="checkbox"/> N	
		- Partial Sample <b>3-19-09</b> <input type="checkbox"/> Y <input type="checkbox"/> N	
		- Retrieved Partial Sample Stroke Length _____	
(8) Field Comments: <b>Ambur Bottle. 3-4-09</b>		(9) Seal Intact Upon Release? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
		(10) Seal Intact Upon Receipt? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
		(11) Seal Number AND Cask/Pig SERIAL Number consistent with this record? (Block 5 & 6b) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
		(12) Laboratory Comments:  <b>So 97001778 omni MARS ✓</b>	
(13) Relinquished By (Sign and PRINT) <i>Eric Walde</i> Eric Walde		(14) Received By (Sign and PRINT) <i>BC-phill</i> BC-phill	
(15) Date/Time <b>3-5-09</b> <b>09:15</b>		(16) Receiver Comments <b>NA</b>	
(17) Relinquished By (Sign and PRINT) <i>BC-phill</i> BC-phill		(18) Received By (Sign and PRINT) <i>rt. shaf. AS tedo</i>	
(19) Date/Time <b>3-5-09</b> <b>10:05</b>		(20) Receiver Comments <b>NA</b>	
(21) Relinquished By (Sign and PRINT)		(22) Received By (Sign and PRINT)	
(23) Date/Time		(24) Receiver Comments	
(25) Relinquished By (Sign and PRINT)		(26) Received By (Sign and PRINT)	
(27) Date/Time		(28) Receiver Comments	

CHAIN-OF-CUSTODY RECORD FOR WTS			
(1) Sample Number <b>6AW-08-03A</b>		(2) Supervisor/Sampler <i>[Signature]</i>	
(3) Tank <b>AW-106</b>	(4) Riser <b>14</b>	(5) Cask/Pig Serial No. <b>460-28</b>	
(6) Shipment Description:		(7) Sampling Data	
A. Work Package Number <b>WFO-WO-08-1375</b>		- Lithium Bromide <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
B. Cask/Pig Seal Number <b>10783</b>		Amount _____	
C. Date Sample Collected <b>3-4-09</b>		Concentration <b>N/A</b>	
D. Time Sample Collected <b>1055hrs</b>		- X-Ray <b>8-19-09</b> <input type="checkbox"/> Y <input type="checkbox"/> N	
		- Partial Sample <input type="checkbox"/> Y <input type="checkbox"/> N	
		- Retrieved Partial Sample Stroke Length _____	
(8) Field Comments: <b>Amber bottles 3-4-09</b>		(9) Seal Intact Upon Release? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
		(10) Seal Intact Upon Receipt? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
		(11) Seal Number AND Cask/Pig SERIAL Number consistent with this record? (Block 5 & 6b) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
		(12) Laboratory Comments:  <b>So 9700 1788</b> <b>Omni ✓</b> <b>MARS</b>	
(13) Relinquished By (Sign and PRINT) <i>Eric Waldo</i> Eric Waldo		(14) Received By (Sign and PRINT) <i>V.P. Matthews</i> V.P. Matthews	
(17) Relinquished By (Sign and PRINT) <i>V.P. Matthews</i> V.P. Matthews		(18) Received By (Sign and PRINT) <i>Fuller</i> T. Collier	
(21) Relinquished By (Sign and PRINT)		(22) Received By (Sign and PRINT)	
(25) Relinquished By (Sign and PRINT)		(26) Received By (Sign and PRINT)	
		(15) Date/Time <b>3/5/09</b> <b>14:07</b>	
		(16) Receiver Comments <b>N/A</b>	
		(19) Date/Time <b>3/5/09</b> <b>1445</b>	
		(20) Receiver Comments	
		(23) Date/Time	
		(24) Receiver Comments	
		(27) Date/Time	
		(28) Receiver Comments	



CHAIN-OF-CUSTODY RECORD FOR WTS			
(1) Sample Number <b>6AW-08-03B</b>		(2) Supervisor/Sampler <i>[Signature]</i>	
(3) Tank <b>AW-106</b>		(4) Riser <b>14</b>	(5) Cask/Pig Serial No. <b>460-9</b>
(6) Shipment Description:		(7) Sampling Data	
A. Work Package Number <b>WFO-WO-08-1375</b>		- Lithium Bromide <input type="checkbox"/> Y <input type="checkbox"/> N	
B. Cask/Pig Seal Number <b>10784</b>		Amount _____	
C. Date Sample Collected <b>3-4-09</b>		Concentration <b>N/A</b> _____	
D. Time Sample Collected <b>1100hrs</b>		- X-Ray <b>3-14-09</b> <input type="checkbox"/> <input type="checkbox"/>	
		- Partial Sample <input type="checkbox"/> <input type="checkbox"/>	
		- Retrieved Partial Sample Stroke Length _____	
(8) Field Comments: <b>Amber bottles - 3-4-09</b>		(9) Seal Intact Upon Release? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
		(10) Seal Intact Upon Receipt? <input type="checkbox"/> Yes <input type="checkbox"/> No	
		(11) Seal Number AND Cask/Pig SERIAL Number consistent with this record? (Block 5 & 6b) <input type="checkbox"/> Yes <input type="checkbox"/> No	
		(12) Laboratory Comments:  <b>509700 1790</b> <b>Omni ✓</b> <b>MARS ✓</b>	
(13) Relinquished By (Sign and PRINT) <i>[Signature]</i> Eric Waldo		(14) Received By (Sign and PRINT) <i>[Signature]</i> B C-phell	
(15) Date/Time <b>3/4/09 13:45</b>		(16) Receiver Comments <b>NA</b>	
(17) Relinquished By (Sign and PRINT) <i>[Signature]</i> B C-phell		(18) Received By (Sign and PRINT) <i>[Signature]</i> T. C. 1/6 d	
(19) Date/Time <b>3/4/09 1430</b>		(20) Receiver Comments	
(21) Relinquished By (Sign and PRINT)		(22) Received By (Sign and PRINT)	
(23) Date/Time		(24) Receiver Comments	
(25) Relinquished By (Sign and PRINT)		(26) Received By (Sign and PRINT)	
(27) Date/Time		(28) Receiver Comments	

CHAIN-OF-CUSTODY RECORD FOR WTS			
(1) Sample Number <b>6AW-08-04A</b>		(2) Supervisor/Sampler <b>RJ. PARNIA</b>	
(3) Tank <b>AW-106</b>		(4) Riser <b>19</b>	(5) Cask/Pig Serial No. <b>460-3</b>
(6) Shipment Description:		(7) Sampling Data	
A. Work Package Number <b>WFO-WO-08-1375</b>		- Lithium Bromide <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
B. Cask/Pig Seal Number <b>10786</b>		Amount _____	
C. Date Sample Collected <b>3-9-09</b>		Concentration <b>N/A</b>	
D. Time Sample Collected <b>1036hrs</b>		- X-Ray <input type="checkbox"/> <input type="checkbox"/>	
		- Partial Sample <input checked="" type="checkbox"/> <b>3-19-09</b> <input type="checkbox"/> <input type="checkbox"/>	
		- Retrieved Partial Sample Stroke Length _____	
(8) Field Comments:		(9) Seal Intact Upon Release? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
		(10) Seal Intact Upon Receipt? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
		(11) Seal Number AND Cask/Pig SERIAL Number consistent with this record? (Block 5 & 6b) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
		(12) Laboratory Comments:  <b>509T001800</b>	
(13) Relinquished By (Sign and PRINT) <b>Eric Waldo Eric Waldo</b>		(14) Received By (Sign and PRINT) <b>Don Harris Don Harris</b>	
(15) Date/Time <b>3/9/09 13:25</b>		(16) Receiver Comments <b>NA</b>	
(17) Relinquished By (Sign and PRINT) <b>Don Harris Don Harris</b>		(18) Received By (Sign and PRINT) <b>Tracy Hall Tracy Hall</b>	
(19) Date/Time <b>3-9-09 1400</b>		(20) Receiver Comments	
(21) Relinquished By (Sign and PRINT)		(22) Received By (Sign and PRINT)	
(23) Date/Time		(24) Receiver Comments	
(25) Relinquished By (Sign and PRINT)		(26) Received By (Sign and PRINT)	
(27) Date/Time		(28) Receiver Comments	

CHAIN-OF-CUSTODY RECORD FOR WTS			
(1) Sample Number <b>6AW-08-04B</b>		(2) Supervisor/Sampler <i>[Signature]</i>	
(9) Seal Intact Upon Release? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
(3) Tank <b>AW-106</b>	(4) Riser <b>19</b>	(5) Cask/Pig Serial No. <b>460-40</b>	(10) Seal Intact Upon Receipt? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
(6) Shipment Description:		(7) Sampling Data	
A. Work Package Number <b>WFO-WO-08-1375</b>		- Lithium Bromide <input type="checkbox"/> Y <input type="checkbox"/> N	
B. Cask/Pig Seal Number <b>10787</b>		Amount _____	
C. Date Sample Collected <b>3-9-09</b>		Concentration _____	
D. Time Sample Collected <b>1041 hr</b>		- X-Ray <b>NA</b> <input type="checkbox"/> <input type="checkbox"/>	
		- Partial Sample <b>3-19-09</b> <input type="checkbox"/> <input type="checkbox"/>	
		- Retrieved Partial Sample Stroke Length _____	
(8) Field Comments:		(11) Seal Number AND Cask/Pig SERIAL Number consistent with this record? (Block 5 & 6b) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
		(12) Laboratory Comments:  <b>509T001802</b>	
(13) Relinquished By (Sign and PRINT) <i>Eric Waldo</i> Eric Waldo		(14) Received By (Sign and PRINT) <i>Dan Harris</i> Dan Harris	
(15) Date/Time <b>3/9/09</b> <b>13:15</b>		(16) Receiver Comments <b>N/A</b>	
(17) Relinquished By (Sign and PRINT) <i>Dan Harris</i> Dan Harris		(18) Received By (Sign and PRINT) <i>Tracy Colton</i> Tracy Colton	
(19) Date/Time <b>3-9-09</b> <b>14:20</b>		(20) Receiver Comments	
(21) Relinquished By (Sign and PRINT)		(22) Received By (Sign and PRINT)	
(23) Date/Time		(24) Receiver Comments	
(25) Relinquished By (Sign and PRINT)		(26) Received By (Sign and PRINT)	
(27) Date/Time		(28) Receiver Comments	

## GENERATOR KNOWLEDGE INFORMATION

1. Chain of Custody Number N/A various CACN/COA See TSAP Customer Identification Number N/A various

2. List generator knowledge or description of process that produced sample. Or list description of sample source:

Tank 241-AW-106 grab samples obtained per TSAP RPP-PLAN-39120.

MSDS Available? ☒ No ☐ Yes Hanford MSDS No. \_\_\_\_\_

3. List all waste codes and constituents associated with the waste or media that was sampled, regardless of CERCLA status.

a) Does the sample contain any of the following listed waste codes?

**By checking "unknown" the customer understands that no knowledge is available following a careful search.**

List Federal Waste Code(s):

List Constituent(s):

P Codes: \_\_\_\_\_ ☐ Yes ☐ No ☐ Unknown

U Codes: \_\_\_\_\_ ☐ Yes ☐ No ☐ Unknown

K Codes: \_\_\_\_\_ ☐ Yes ☐ No ☐ Unknown

F Codes: F001 - F005 ☐ Yes ☐ No ☐ Unknown

b) List applicable characteristic waste codes, flash point, pH, constituents, and concentrations as appropriate.

D001: ☐ FP <100°F ☐ FP ≥100 <140°F ☐ DOT Oxidizer ☐ Yes ☐ No ☐ Unknown

D002: ☐ pH ≤2 ☒ pH ≥12.5 ☐ Solid Corrosive (WSC2) ☒ Yes ☐ No ☐ Unknown

D003: ☒ Cyanide ☒ Sulfide ☐ Water Reactive ☐ Other \_\_\_\_\_ ☒ Yes ☐ No ☐ Unknown  
(i.e., peroxide former, explosive, air reactive)

D004-D043 (Identify applicable waste codes and concentrations): ☐ Yes ☐ No ☐ Unknown

D004 - D011; D018, D019, D022, D028 - D030; D033 - D036; D038 - D041; D043

c) If characteristic, list any known underlying hazardous constituents (UHCs) reasonably expected to be present, and their concentrations that may be present above the LDR treatment standard (40 CFR 268.48):

Not needed per 222-S Environmental Compliance Officer (ECO) since waste will be returned to tank farms via 219-S.

d) List any known Land Disposal Restrictions (LDR) subcategories, if applicable (40 CFR 268.40):

Not needed per 222-S ECO since waste will be returned to tank farms via 219-S.

e) List any applicable Washington State dangerous waste codes: (not required if federally regulated)

(\*State mixture rule for ignitability)

WT01: ☐ Yes ☐ No ☐ Unknown

WP01: ☐ Yes ☐ No ☐ Unknown

WT02: ☐ Yes ☐ No ☐ Unknown

WP02: ☐ Yes ☐ No ☐ Unknown

W001: ☐ Yes ☐ No ☐ Unknown

WP03: ☐ Yes ☐ No ☐ Unknown

List constituents and concentrations:

F003:\* ☐ Yes ☐ No ☐ Unknown

4. Is this material TSCA regulated for PCBs? ☒ Yes ☐ No ☐ Unknown ☐ Analysis Requested

List concentration if applicable: Current contents have not been analyzed for PCB's.

If yes, what is the source of the PCBs? (see TSCA PCB Hanford Site User Guide, DOE/RL-2001-50)

☐ PCB Liquid Waste

☐ PCB Bulk Product Waste

☐ PCB Transformer ≥500 ppm

☐ Unknown

☐ PCB Remediation Waste

☐ PCB R&D Waste

☐ PCB contaminated electrical equipment (capacitor/ballast) <500 ppm

☐ PCB Spill Material

☐ PCB Item

☐ Other PCB Waste (list) \_\_\_\_\_

5. Is this material TRU? ☐ Yes ☐ No ☒ Unknown

6. ACCURACY OF INFORMATION

Based on my inquiry of those individuals immediately responsible for obtaining this information, that to the best of my knowledge, the information entered in this document is true, accurate, and complete.

Print & Sign

Tuerger H. Rafmiller

Date

2/11/09

Attachment 9

RAW DATA

## HOT CELL TESTS

## LABCORE Completed Batch Report for Batch# 00013287

Analyst: McColloch, Todd

Book#:

Instrument: Sony Camcorder

Method: BREAKDOWN SAMPLE, LA-519-151 Rev/Mod J-0

Specification: AW106 EVAP3

Prep Batch:


Batch Comment:

Seq Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
Sample Sequence 1															
1 SAMPLE	S09T001751		0	0	Record Appearance	LIQUID	N/A	See Note							Q
1 SAMPLE	S09T001751		0	0	Volume % Settled Solids	LIQUID	N/A	0				%			Q
Sample Sequence 2															
2 SAMPLE	S09T001767		0	0	Record Appearance	LIQUID	N/A	See Note							Q
2 SAMPLE	S09T001767		0	0	Volume % Settled Solids	LIQUID	N/A	0				%			Q

### Comments Section:

Data Flagger Status:  
Flagging Completed

Final Page for Batch# 00013287

  
Reviewer Signature M. A. Purser Date 3/10/09

### LABCORE Completed Batch Report for Batch# 00013287

Seq	Sample#	QC Type	Assoc. Sample	Sample Group	Customer Id	Specification
1	S09T001751	SAMPLE		20090162	6AW-08-01FB1	AW106 EVAP3
2	S09T001767	SAMPLE		20090162	6AW-08-01TB	AW106 EVAP3



3/5/2009 7:34:28PM  
 IncompleteBatchLong Version 2.7.22  
 batchreports 2.7.25

Page: 1

## LABCORE Data Entry Template for Batch# 00013287

Analyst: McColloch, Todd

Standard ID / Book#: N/A

Instrument: Sony Camcorder

LA-519-151

J-D

Method: BREAKDOWN SAMPLE,

~~LA-080-112~~Rev/Mod ~~K-D~~


1AK

Prep Batch:

Batch Comment:

GROUP#	PROJECT	S	TYPE	SAMPLE	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
20090162	AW106 EV	1	SAMPLE	S09T001751	0		Record Appearance	LIQUID	N/A	SEE NOTE		
20090162	AW106 EV	1	SAMPLE	S09T001751	0		Volume % Settled Solids	LIQUID	N/A	0		%
20090162	AW106 EV	2	SAMPLE	S09T001767	0		Record Appearance	LIQUID	N/A	SEE NOTE		
20090162	AW106 EV	2	SAMPLE	S09T001767	0		Volume % Settled Solids	LIQUID	N/A	0		%

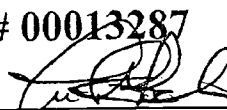
Final Page for Batch# 00013287



Analyst Signature

3/5/09

Date



Data Entry Signature

3/5/09

Date

Data Entry Comments:

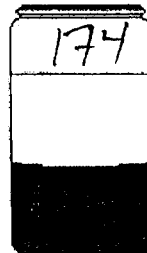
Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Batch Slot Number,  
 R = Retest Number, A = Aliquot Code

Project Coordinator: Klinger

## HCBRKDWN / PIG - VOL% SETTLED SOLIDS

OmniLIMS # 509T001751Balance: LE-BAL # 097 Weights: 20.002 Weights: 500.038Seal Num: 16778Etch Num: 64W-08-01FBIDose Rate: 20.5

Lab Core # \_\_\_\_\_

Bottle Full: Y X N \_\_\_\_\_Ht. of Sample: 125 mmHt. of Solids: 0 mmVol. % StlSlds: 0 %Sample Volume: 250 mLOrganic Vol. 0 mLGross Wt: N/A gColor Liquid: ColorlessTare Wt.: 174 gClarity: clearNet Wt.: N/A gColor Solids: NONE Trace Solids: Y N XVolume Amount of Sample: 250 mLNalgene Plastic Bottles 60mL = 14.6 g / Eagle Pitcher (Black Lid Jars) 125mL = 131 g / Wheaten: (White Lid Jars) 500mL = 200 gI-Chem.: (Blue Lid Jars) / Spec. Wide Mouth: (Light Blue Lids) / Amber, Small-Neck Bottles / Clear, Small-Neck Bottles

250mL = 159 g

500mL = 294 g

125 mL = 95 g

125mL = 108 g

250 mL = 174 g

250mL = 174 g

Photography Complete: N/A

APPEAR01: Received a full 250ml bottle of clear colorless liquid. No  
solids visible. No organic layer visible.

Analyst: PODate: 3/5/09

Project Coordinator: Klinger

HCBRKDOWN / PIG - VOL% SETTLED SOLIDS

OmniLIMS # 509T001767

Balance: LE-BAL # 097 Weights: 20.002 Weights: 500.038

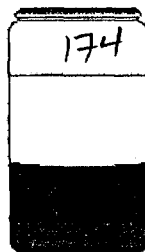
Seal Num: 10785

Etch Num: 6AW-08-01TB

Dose Rate: 20.5

Lab Core # \_\_\_\_\_

Bottle Full: Y X N \_\_\_\_\_



Ht. of Sample: 125 mm

Ht. of Solids: 0 mm

Vol. % Solids: 0 %

Sample Volume: 250 mL

Organic Vol. 0 mL

Gross Wt: N/A g

Color Liquid: Colorless

Tare Wt.: 174 g

Clarity: Clear

Net Wt.: N/A g

Color Solids: NONE Trace Solids: Y N X

Volume Amount of Sample: 250 mL

Nalgene Plastic Bottles 60mL = 14.6 g / Eagle Pitcher (Black Lid Jars) 125mL = 131 g / Wheaton: (White Lid Jars) 500mL = 200 g

I-Chem.: (Blue Lid Jars) / Spec. Wide Mouth: (Light Blue Lids) / Amber, Small-Neck Bottles / Clear, Small-Neck Bottles

250mL = 159 g

500mL = 294 g

125 mL = 95 g

250 mL = 174 g

125mL = 108 g

250mL = 174 g

Photography Complete: N/A

APPEAR01: Received a full 250ml bottle of clear colorless liquid. No solids visible. No organic layer visible.

Analyst: PO

Date: 3/5/09

## LABCORE Completed Batch Report for Batch# 00013284

Analyst: McColloch, Todd

Book#: N/A

Instrument: Sony Camcorder

Method: BREAKDOWN PIG - HC, LA-519-151 Rev/Mod J-0

Specification: AW106 EVAP3

Prep Batch:

Batch Comment:

Seq Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
Sample Sequence 1															
1 SAMPLE	S09T001756		0 0		Record Appearance	LIQUID	N/A	See Note							Q
1 SAMPLE	S09T001756		0 0		Color	LIQUID	N/A	Colorless							Q
1 SAMPLE	S09T001756		0 0		Clarity	LIQUID	N/A	Clear							Q
1 SAMPLE	S09T001756		0 0		Dose Rate	LIQUID	N/A	<0.5			0.5	mRem/hr			QU
1 SAMPLE	S09T001756		0 0		Etched Number	LIQUID	N/A	6AW-08-01F B2							
1 SAMPLE	S09T001756		0 0		Organic Volume Present	LIQUID	N/A	0				mL			Q
1 SAMPLE	S09T001756		0 0		Photography	LIQUID	N/A	Complete							
1 SAMPLE	S09T001756		0 0		Amount of Sample Present	LIQUID	N/A	242.5				g			Q
1 SAMPLE	S09T001756		0 0		Seal Number	LIQUID	N/A	10779							
1 SAMPLE	S09T001756		0 0		Volume % Settled Solids	LIQUID	N/A	0				%			Q
1 SAMPLE	S09T001756		0 0		Volume of Sample	LIQUID	N/A	250				mL			Q
Sample Sequence 2															
2 SAMPLE	S09T001776		0 0		Record Appearance	LIQUID	N/A	See Note							Q
2 SAMPLE	S09T001776		0 0		Color	LIQUID	N/A	Yellow							Q
2 SAMPLE	S09T001776		0 0		Clarity	LIQUID	N/A	Clear							Q
2 SAMPLE	S09T001776		0 0		Dose Rate	LIQUID	N/A	480				mRem/hr			Q
2 SAMPLE	S09T001776		0 0		Etched Number	LIQUID	N/A	6AW-08-02A							
2 SAMPLE	S09T001776		0 0		Organic Volume Present	LIQUID	N/A	0				mL			Q
2 SAMPLE	S09T001776		0 0		Photography	LIQUID	N/A	Complete							
2 SAMPLE	S09T001776		0 0		Amount of Sample Present	LIQUID	N/A	301.5				g			Q
2 SAMPLE	S09T001776		0 0		Seal Number	LIQUID	N/A	10781							
2 SAMPLE	S09T001776		0 0		Volume % Settled Solids	LIQUID	N/A	0				%			Q
2 SAMPLE	S09T001776		0 0		Volume of Sample	LIQUID	N/A	250				mL			Q
Sample Sequence 3															
3 SAMPLE	S09T001778		0 0		Record Appearance	LIQUID	N/A	See Note							Q
3 SAMPLE	S09T001778		0 0		Color	LIQUID	N/A	Yellow							Q

Units shown for QC (BLK/BKG) may not reflect the actual units.

RPP-RPT-40709 Rev. 1


## LABCORE Completed Batch Report for Batch# 00013284

Seq Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
3 SAMPLE	S09T001778		0	0	Clarity	LIQUID	N/A	Clear							Q
3 SAMPLE	S09T001778		0	0	Dose Rate	LIQUID	N/A	180				mRem/hr			Q
3 SAMPLE	S09T001778		0	0	Etched Number	LIQUID	N/A	6AW-08-02B							
3 SAMPLE	S09T001778		0	0	Organic Volume Present	LIQUID	N/A	0				mL			Q
3 SAMPLE	S09T001778		0	0	Photography	LIQUID	N/A	Complete							
3 SAMPLE	S09T001778		0	0	Amount of Sample Present	LIQUID	N/A	301.7				g			Q
3 SAMPLE	S09T001778		0	0	Seal Number	LIQUID	N/A	13659							
3 SAMPLE	S09T001778		0	0	Volume % Settled Solids	LIQUID	N/A	0				%			Q
3 SAMPLE	S09T001778		0	0	Volume of Sample	LIQUID	N/A	250				mL			Q
Sample Sequence 4															
4 SAMPLE	S09T001788		0	0	Record Appearance	LIQUID	N/A	See Note							Q
4 SAMPLE	S09T001788		0	0	Color	LIQUID	N/A	Yellow							Q
4 SAMPLE	S09T001788		0	0	Clarity	LIQUID	N/A	Clear							Q
4 SAMPLE	S09T001788		0	0	Dose Rate	LIQUID	N/A	114				mRem/hr			Q
4 SAMPLE	S09T001788		0	0	Etched Number	LIQUID	N/A	6AW-08-03A							
4 SAMPLE	S09T001788		0	0	Organic Volume Present	LIQUID	N/A	0				mL			Q
4 SAMPLE	S09T001788		0	0	Photography	LIQUID	N/A	Complete							
4 SAMPLE	S09T001788		0	0	Amount of Sample Present	LIQUID	N/A	301.3				g			Q
4 SAMPLE	S09T001788		0	0	Seal Number	LIQUID	N/A	10783							
4 SAMPLE	S09T001788		0	0	Volume % Settled Solids	LIQUID	N/A	0				%			Q
4 SAMPLE	S09T001788		0	0	Volume of Sample	LIQUID	N/A	250				mL			Q

### Comments Section:

Data Flagger Status:  
Flagging Completed

Final Page for Batch# 00013284

  
Reviewer Signature M.A. Purcell Date 3/12/09

### LABCORE Completed Batch Report for Batch# 00013284

Seq	Sample#	QC Type	Assoc. Sample	Sample Group	Customer Id	Specification
1	S09T001756	SAMPLE		20090162	6AW-08-01FB2	AW106 EVAP3
2	S09T001776	SAMPLE		20090162	6AW-08-02A	AW106 EVAP3
3	S09T001778	SAMPLE		20090162	6AW-08-02B	AW106 EVAP3
4	S09T001788	SAMPLE		20090162	6AW-08-03A	AW106 EVAP3

## LABCORE Data Entry Template for Batch# 00013284

Analyst: McColloch, Todd

Standard ID / Book#: N/A

Instrument: Sony Camcorder

Method: BREAKDOWN PIG - HC, LO-680-112 Rev/Mod K-0

Prep Batch:

Batch Comment:

GROUP#	PROJECT	S	TYPE	SAMPLE	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
20090162	AW106 EV	1	SAMPLE	S09T001756	0		Record Appearance	LIQUID	N/A	SEE NOTE		
20090162	AW106 EV	1	SAMPLE	S09T001756	0		Color	LIQUID	N/A	Colorless		
20090162	AW106 EV	1	SAMPLE	S09T001756	0		Clarity	LIQUID	N/A	clear		
20090162	AW106 EV	1	SAMPLE	S09T001756	0		Dose Rate	LIQUID	N/A	20.5		mRem/hr
20090162	AW106 EV	1	SAMPLE	S09T001756	0		Etched Number	LIQUID	N/A	6AW-08-01FB2		
20090162	AW106 EV	1	SAMPLE	S09T001756	0		Organic Volume Present	LIQUID	N/A	0		mL
20090162	AW106 EV	1	SAMPLE	S09T001756	0		Photography	LIQUID	N/A	Complete		
20090162	AW106 EV	1	SAMPLE	S09T001756	0		Amount of Sample Present	LIQUID	N/A	242.5		g
20090162	AW106 EV	1	SAMPLE	S09T001756	0		Seal Number	LIQUID	N/A	10779		
20090162	AW106 EV	1	SAMPLE	S09T001756	0		Volume % Settled Solids	LIQUID	N/A	0		%
20090162	AW106 EV	1	SAMPLE	S09T001756	0		Volume of Sample	LIQUID	N/A	250		mL
20090162	AW106 EV	2	SAMPLE	S09T001776	0		Record Appearance	LIQUID	N/A	SEE NOTE		
20090162	AW106 EV	2	SAMPLE	S09T001776	0		Color	LIQUID	N/A	Yellow		
20090162	AW106 EV	2	SAMPLE	S09T001776	0		Clarity	LIQUID	N/A	clear		
20090162	AW106 EV	2	SAMPLE	S09T001776	0		Dose Rate	LIQUID	N/A	95		mRem/hr
20090162	AW106 EV	2	SAMPLE	S09T001776	0		Etched Number	LIQUID	N/A	6AW-08-02A		
20090162	AW106 EV	2	SAMPLE	S09T001776	0		Organic Volume Present	LIQUID	N/A	0		mL
20090162	AW106 EV	2	SAMPLE	S09T001776	0		Photography	LIQUID	N/A	Complete		
20090162	AW106 EV	2	SAMPLE	S09T001776	0		Amount of Sample Present	LIQUID	N/A	301.5		g
20090162	AW106 EV	2	SAMPLE	S09T001776	0		Seal Number	LIQUID	N/A	10781		
20090162	AW106 EV	2	SAMPLE	S09T001776	0		Volume % Settled Solids	LIQUID	N/A	0		%
20090162	AW106 EV	2	SAMPLE	S09T001776	0		Volume of Sample	LIQUID	N/A	250		mL
20090162	AW106 EV	3	SAMPLE	S09T001778	0		Record Appearance	LIQUID	N/A	SEE NOTE		
20090162	AW106 EV	3	SAMPLE	S09T001778	0		Color	LIQUID	N/A	Yellow		
20090162	AW106 EV	3	SAMPLE	S09T001778	0		Clarity	LIQUID	N/A	clear		
20090162	AW106 EV	3	SAMPLE	S09T001778	0		Dose Rate	LIQUID	N/A	180		mRem/hr
20090162	AW106 EV	3	SAMPLE	S09T001778	0		Etched Number	LIQUID	N/A	6AW-08-02B		
20090162	AW106 EV	3	SAMPLE	S09T001778	0		Organic Volume Present	LIQUID	N/A	0		mL
20090162	AW106 EV	3	SAMPLE	S09T001778	0		Photography	LIQUID	N/A	Complete		
20090162	AW106 EV	3	SAMPLE	S09T001778	0		Amount of Sample Present	LIQUID	N/A	301.7		g
20090162	AW106 EV	3	SAMPLE	S09T001778	0		Seal Number	LIQUID	N/A	13659		
20090162	AW106 EV	3	SAMPLE	S09T001778	0		Volume % Settled Solids	LIQUID	N/A	0		%
20090162	AW106 EV	3	SAMPLE	S09T001778	0		Volume of Sample	LIQUID	N/A	250		mL
20090162	AW106 EV	4	SAMPLE	S09T001788	0		Record Appearance	LIQUID	N/A	SEE NOTE		
20090162	AW106 EV	4	SAMPLE	S09T001788	0		Color	LIQUID	N/A	Yellow		
20090162	AW106 EV	4	SAMPLE	S09T001788	0		Clarity	LIQUID	N/A	clear		
20090162	AW106 EV	4	SAMPLE	S09T001788	0		Dose Rate	LIQUID	N/A	114		mRem/hr

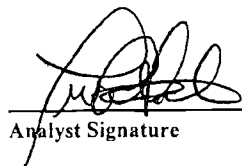
Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Batch Slot Number,  
R = Retest Number, A = Aliquot Code.

## LABCORE Data Entry Template for Batch# 00013284

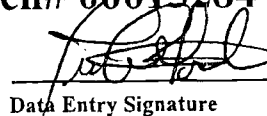
GROUP#	PROJECT	S	TYPE	SAMPLE	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
20090162	AW106 EV	4	SAMPLE	S09T001788	0		Etched Number	LIQUID	N/A	6AW-08-03A		
20090162	AW106 EV	4	SAMPLE	S09T001788	0		Organic Volume Present	LIQUID	N/A	0		mL
20090162	AW106 EV	4	SAMPLE	S09T001788	0		Photography	LIQUID	N/A	Complete		
20090162	AW106 EV	4	SAMPLE	S09T001788	0		Amount of Sample Present	LIQUID	N/A	301.3		g
20090162	AW106 EV	4	SAMPLE	S09T001788	0		Seal Number	LIQUID	N/A	10783		
20090162	AW106 EV	4	SAMPLE	S09T001788	0		Volume % Settled Solids	LIQUID	N/A	0		%
20090162	AW106 EV	4	SAMPLE	S09T001788	0		Volume of Sample	LIQUID	N/A	250		mL

## Final Page for Batch# 00013284

  
 Analyst Signature

3/5/09

Date

  
 Data Entry Signature

3/5/09

Date

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Batch Slot Number,  
 R = Retest Number, A = Aliquot Code.



Project Coordinator: Klinger

HCBRKDOWN / PIG - VOL% SETTLED SOLIDS

OmniLIMS # 509T001756

Balance: LE-BAL # 097 Weights: 20.002 Weights: 500.038

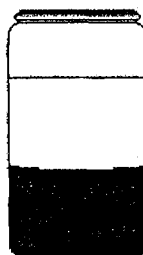
Seal Num: 10779

Etch Num: 6AW-08-01FB2

Dose Rate: 20.5

Lab Core # \_\_\_\_\_

Bottle Full: Y X N \_\_\_\_\_



Ht. of Sample: 125 mm

Ht. of Solids: 0 mm

Vol. % Solids: 0 %

Sample Volume: 250 mL

Organic Vol. 0 mL

Gross Wt: 416.5 g

Color Liquid: clear colorless

Tare Wt: 174 g

Clarity: clear

Net Wt: 242.5 g

Color Solids: None Trace Solids: Y N X

Volume Amount of Sample: 250 mL

Nalgene Plastic Bottles 60mL = 14.6 g / Eagle Pitcher (Black Lid Jars) 125mL = 131 g / Wheaten: (White Lid Jars) 500mL = 200 g

I-Chem.: (Blue Lid Jars) / Spec. Wide Mouth: (Light Blue Lids) / Amber, Small-Neck Bottles / Clear, Small-Neck Bottles

250mL = 159 g

500mL = 294 g

125 mL = 95 g

125mL = 108 g

250 mL = 174 g

250mL = 174 g

Photography Complete: Yes

APPEAR01: Received a full 250ml bottle of clear colorless liquid. No solids visible. No organic layer visible.

Analyst: [Signature]

Date: 3/5/09

Project Coordinator: Klinger

HCBRKDWN / PIG - VOL% SETTLED SOLIDS

OmniLIMS # 509T001776

Balance: LE-BAL # 097 Weights: 20.001 Weights: 500.038

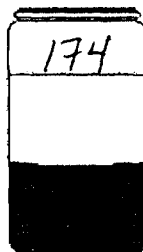
Seal Num: 10781

Etch Num: QAW-08-02A

Dose Rate: 95

Lab Core # \_\_\_\_\_

Bottle Full: Y X N \_\_\_\_\_



Ht. of Sample: 125 mm

Ht. of Solids: 0 mm

Vol. % Solids: 0 %

Sample Volume: 250 mL

Organic Vol. 0 mL

Color Liquid: Yellow.

Clarity: clear

Color Solids: NONE Trace Solids: Y N X

Volume Amount of Sample: 250 mL

Gross Wt: 475.5 g

Tare Wt.: 174 g

Net Wt.: 301.5 g

Nalgene Plastic Bottles 60mL = 14.6 g / Eagle Pitcher (Black Lid Jars) 125mL = 131 g / Wheaten: (White Lid Jars) 500mL = 200 g

I-Chem.: (Blue Lid Jars) / Spec. Wide Mouth: (Light Blue Lids) / Amber, Small-Neck Bottles / Clear, Small-Neck Bottles  
250mL = 159 g 500mL = 294 g 125 mL = 95 g 125mL = 108 g  
250mL = 174 g 250mL = 174 g

Photography Complete: Yes

APPEAR01: Received a full 250ml bottle of clear yellow liquid. No solids  
visible. No organic layer visible.

Analyst: [Signature]

Date: 3/5/09

Project Coordinator: Klinger

# HCBRKDWN / PIG - VOL% SETTLED SOLIDS

OmniLIMS # 509T001778

Balance: LE-BAL # 697 Weights: 20.001 Weights: 500.038

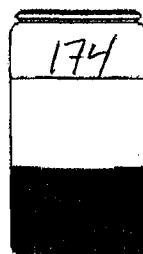
Seal Num: 13659

Etch Num: CAW-08-02B

Dose Rate: 180

Lab Core # \_\_\_\_\_

Bottle Full: Y X N \_\_\_\_\_



Ht. of Sample: 125 mm

Ht. of Solids: 0 mm

Vol. % Solids: 0 %

Sample Volume: 250 mL

Organic Vol. 0 mL

Color Liquid: Yellow

Clarity: Clear

Color Solids: NONE Trace Solids: Y \_\_\_ N X

Volume Amount of Sample: 250 mL

Gross Wt: 475.7 g

Tare Wt.: 174 g

Net Wt.: 301.7 g

Nalgene Plastic Bottles 60mL = 14.6 g / Eagle Pitcher (Black Lid Jars) 125mL = 131 g / Wheaten: (White Lid Jars) 500mL = 200 g

I-Chem.: (Blue Lid Jars) 250mL = 159 g / Spec. Wide Mouth: (Light Blue Lids) 500mL = 294 g / Amber, Small-Neck Bottles 125 mL = 95 g 250 mL = 174 g / Clear, Small-Neck Bottles 125mL = 108 g 250mL = 174 g

Photography Complete: Yes

APPEAR01: Received & full 250ml bottle of clear yellow liquid. No solids visible. No organic layer visible.

Analyst: [Signature] Date: 3/5/09

Project Coordinator: Klinger

HCBRKDOWN / PIG - VOL% SETTLED SOLIDS

OmniLIMS # 509T001788

Balance: LE-BAL # 097 Weights: 20.002 Weights: 500.038

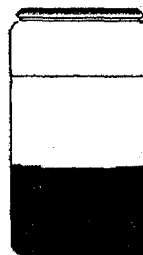
Seal Num: 10783

Etch Num: QAW-08-03A

Dose Rate: 570 114

Lab Core # \_\_\_\_\_

Bottle Full: Y X N \_\_\_\_\_



Ht. of Sample: 125 mm

Ht. of Solids: 0 mm

Vol. % StlSlds: 0 %

Sample Volume: 250 mL

Organic Vol. 0 mL

Gross Wt: 475.3 g

Color Liquid: Yellow.

Tare Wt.: 174 g

Clarity: clear

Net Wt.: 301.3 g

Color Solids: None Trace Solids: Y N X

Volume Amount of Sample: 250 mL

Nalgene Plastic Bottles 60mL = 14.6 g / Eagle Pitcher (Black Lid Jars) 125mL = 131 g / Wheaton: (White Lid Jars) 500mL = 200 g

<u>I-Chem.: (Blue Lid Jars)</u>	<u>/ Spec. Wide Mouth: (Light Blue Lids)</u>	<u>/ Amber, Small-Neck Bottles</u>	<u>/ Clear, Small-Neck Bottles</u>
250mL = 159 g	500mL = 294 g	125 mL = 95 g	125mL = 108 g
		250 mL = 174 g	250mL = 174 g

Photography Complete: Yes

APPEAR01: Received a full 250 ml bottle of clear yellow liquid. No solids  
visible. No organic layer visible.

Analyst:  Date: 3/5/09

## LABCORE Completed Batch Report for Batch# 00013253

**Analyst:** McColloch, Todd

**Book#:** N/A

**Instrument:** Sony Camcorder

**Method:** BREAKDOWN PIG - HC, LA-519-151 Rev/Mod J-0

**Specification:** AW106 EVAP3

**Prep Batch:**

**Batch Comment:**

Seq Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
Sample Sequence 1															
1 SAMPLE	S09T001770		0	0	Record Appearance	LIQUID	N/A	See Note							Q
1 SAMPLE	S09T001770		0	0	Color	LIQUID	N/A	Yellow							Q
1 SAMPLE	S09T001770		0	0	Clarity	LIQUID	N/A	Clear							Q
1 SAMPLE	S09T001770		0	0	Dose Rate	LIQUID	N/A	120				mRem/hr			Q
1 SAMPLE	S09T001770		0	0	Etched Number	LIQUID	N/A	6AW-08-01							
1 SAMPLE	S09T001770		0	0	Organic Volume Present	LIQUID	N/A	0				mL			Q
1 SAMPLE	S09T001770		0	0	Photography	LIQUID	N/A	Complete							
1 SAMPLE	S09T001770		0	0	Amount of Sample Present	LIQUID	N/A	306.3				g			Q
1 SAMPLE	S09T001770		0	0	Seal Number	LIQUID	N/A	10780							
1 SAMPLE	S09T001770		0	0	Volume % Settled Solids	LIQUID	N/A	0				%			Q
1 SAMPLE	S09T001770		0	0	Volume of Sample	LIQUID	N/A	250				mL			Q
Sample Sequence 2															
2 SAMPLE	S09T001790		0	0	Record Appearance	LIQUID	N/A	See Note							Q
2 SAMPLE	S09T001790		0	0	Color	LIQUID	N/A	Yellow							Q
2 SAMPLE	S09T001790		0	0	Clarity	LIQUID	N/A	Clear							Q
2 SAMPLE	S09T001790		0	0	Dose Rate	LIQUID	N/A	120				mRem/hr			Q
2 SAMPLE	S09T001790		0	0	Etched Number	LIQUID	N/A	6AW-08-03B							
2 SAMPLE	S09T001790		0	0	Organic Volume Present	LIQUID	N/A	0				mL			Q
2 SAMPLE	S09T001790		0	0	Photography	LIQUID	N/A	Complete							
2 SAMPLE	S09T001790		0	0	Amount of Sample Present	LIQUID	N/A	301.6				g			Q
2 SAMPLE	S09T001790		0	0	Seal Number	LIQUID	N/A	10784							
2 SAMPLE	S09T001790		0	0	Volume % Settled Solids	LIQUID	N/A	0				%			Q
2 SAMPLE	S09T001790		0	0	Volume of Sample	LIQUID	N/A	250				mL			Q

Units shown for QC (BLK/BKG) may not reflect the actual units.

RPP-RPT-40709 Rev. 1


## LABCORE Completed Batch Report for Batch# 00013253

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### Comments Section:

Data Flagger Status:  
Flagging Completed

**Final Page for Batch# 00013253**

 3/10/09  
\_\_\_\_\_  
Reviewer Signature M. A. PURREN Date

### LABCORE Completed Batch Report for Batch# 00013253

Seq	Sample#	QC Type	Assoc. Sample	Sample Group	Customer Id	Specification
1	S09T001770	SAMPLE		20090162	6AW-08-01	AW106 EVAP3
2	S09T001790	SAMPLE		20090162	6AW-08-03B	AW106 EVAP3

IncompleteBatchLong Version 2.7.22  
batchreports 2.7.25

# LABCORE Data Entry Template for Batch# 00013253

Analyst: McColloch, Todd

Standard ID / Book#: N/A

Instrument: Sony Camcorder

Method: BREAKDOWN PIG - HC, LO-080-112 Rev/Mod K-0

Prep Batch:

Batch Comment:

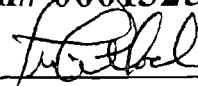
GROUP#	PROJECT	S	TYPE	SAMPLE	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
20090162	AW106 EV	1	SAMPLE	S09T001770	0		Record Appearance	LIQUID	N/A	SEE NOTE		
20090162	AW106 EV	1	SAMPLE	S09T001770	0		Color	LIQUID	N/A	Yellow		
20090162	AW106 EV	1	SAMPLE	S09T001770	0		Clarity	LIQUID	N/A	Clear		
20090162	AW106 EV	1	SAMPLE	S09T001770	0		Dose Rate	LIQUID	N/A	120		mRem/hr
20090162	AW106 EV	1	SAMPLE	S09T001770	0		Etched Number	LIQUID	N/A	6AW-08-01		
20090162	AW106 EV	1	SAMPLE	S09T001770	0		Organic Volume Present	LIQUID	N/A	0		mL
20090162	AW106 EV	1	SAMPLE	S09T001770	0		Photography	LIQUID	N/A	Complete		
20090162	AW106 EV	1	SAMPLE	S09T001770	0		Amount of Sample Present	LIQUID	N/A	306.3		g
20090162	AW106 EV	1	SAMPLE	S09T001770	0		Seal Number	LIQUID	N/A	10780		
20090162	AW106 EV	1	SAMPLE	S09T001770	0		Volume % Settled Solids	LIQUID	N/A	0		%
20090162	AW106 EV	1	SAMPLE	S09T001770	0		Volume of Sample	LIQUID	N/A	250		mL
20090162	AW106 EV	2	SAMPLE	S09T001790	0		Record Appearance	LIQUID	N/A	SEE NOTE		
20090162	AW106 EV	2	SAMPLE	S09T001790	0		Color	LIQUID	N/A	Yellow		
20090162	AW106 EV	2	SAMPLE	S09T001790	0		Clarity	LIQUID	N/A	Clear		
20090162	AW106 EV	2	SAMPLE	S09T001790	0		Dose Rate	LIQUID	N/A	120		mRem/hr
20090162	AW106 EV	2	SAMPLE	S09T001790	0		Etched Number	LIQUID	N/A	6AW-08-03B		
20090162	AW106 EV	2	SAMPLE	S09T001790	0		Organic Volume Present	LIQUID	N/A	0		mL
20090162	AW106 EV	2	SAMPLE	S09T001790	0		Photography	LIQUID	N/A	Complete		
20090162	AW106 EV	2	SAMPLE	S09T001790	0		Amount of Sample Present	LIQUID	N/A	301.6		g
20090162	AW106 EV	2	SAMPLE	S09T001790	0		Seal Number	LIQUID	N/A	10784		
20090162	AW106 EV	2	SAMPLE	S09T001790	0		Volume % Settled Solids	LIQUID	N/A	0		%
20090162	AW106 EV	2	SAMPLE	S09T001790	0		Volume of Sample	LIQUID	N/A	250		mL

## Final Page for Batch# 00013253

  
Analyst Signature

3/4/09

Date

  
Data Entry Signature

3/4/09

Date

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Batch Slot Number,  
R = Retest Number, A = Aliquot Code.



Project Coordinator: Klinger

HCBRKDWN / PIG - VOL% SETTLED SOLIDS

OmniLIMS # 509T001770

Balance: LE-BAL # 097 Weights: 20002 Weights: 500.039

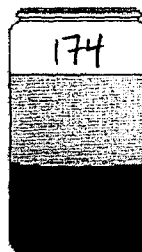
Seal Num: 10780

Etch Num: 6AW-08-01

Dose Rate: 120

Lab Core # \_\_\_\_\_

Bottle Full: Y X N \_\_\_\_\_



Ht. of Sample: 125 mm

Ht. of Solids: 0 mm

Vol. % Solids: 0 %

Sample Volume: 250 mL

Organic Vol. 0 mL

Gross Wt: 480.3 g

Color Liquid: Yellow

Tare Wt.: 174 g

Clarity: Clear

Net Wt.: 306.3 g

Color Solids: None Trace Solids: Y N X

Volume Amount of Sample: 250 mL

Nalgene Plastic Bottles 60mL = 14.6 g / Eagle Pitcher (Black Lid Jars) 125mL = 131 g / Wheaten: (White Lid Jars) 500mL = 200 g

I-Chem.: (Blue Lid Jars) / Spec. Wide Mouth: (Light Blue Lids) / Amber, Small-Neck Bottles / Clear, Small-Neck Bottles

250mL = 159 g

500mL = 294 g

125 mL = 95 g

250 mL = 174 g

125mL = 108 g

250mL = 174 g

Photography Complete: Yes

APPEAR01: Received a full 250 ml bottle of clear yellow liquid. No solids visible. No organic layer visible.

Analyst: Fullbrook Date: 3/4/09

Project Coordinator: Klinger

HCBRKDOWN / PIG - VOL% SETTLED SOLIDS

OmniLIMS # 509T001790

Balance: LE-BAL # 097 Weights: 20.002 Weights: 500.039

Seal Num: 10784 Etch Num: 6AW-08-03B Dose Rate: 120

Lab Core # \_\_\_\_\_

Bottle Full: Y X N \_\_\_\_\_



Ht. of Sample: 125 mm

Ht. of Solids: 0 mm

Vol. % Solids: 0 %

Sample Volume: 250 mL

Organic Vol. 0 mL

Color Liquid: Yellow

Clarity: Clear

Color Solids: NONE Trace Solids: Y N X

Volume Amount of Sample: 250 mL

Gross Wt: 475.6 g

Tare Wt.: 174 g

Net Wt.: 301.6 g

Nalgene Plastic Bottles 60mL = 14.6 g / Eagle Pitcher (Black Lid Jars) 125mL = 131 g / Wheaten: (White Lid Jars) 500mL = 200 g

I-Chem.: (Blue Lid Jars) / Spec. Wide Mouth: (Light Blue Lids) / Amber, Small-Neck Bottles / Clear, Small-Neck Bottles  
250mL = 159 g      500mL = 294 g      125 mL = 95 g      125mL = 108 g  
250 mL = 174 g      250mL = 174 g

Photography Complete: Yes

APPEAR01: Received a full 250 ml bottle of clear yellow liquid. No solids visible. No organic layer visible.

Analyst: [Signature] Date: 3/4/09

## LABCORE Completed Batch Report for Batch# 00014142

Analyst: McColloch, Todd

Book#: N/A

Instrument:

Method: BREAKDOWN PIG - HC, LA-519-151 Rev/Mod J-0

Specification: AW106 EVAP3

Prep Batch:

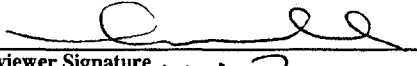
Batch Comment:

Seq Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
Sample Sequence 1															
1 SAMPLE	S09T001802		0	0	Record Appearance	LIQUID	N/A	See Note							Q
1 SAMPLE	S09T001802		0	0	Color	LIQUID	N/A	Yellow							Q
1 SAMPLE	S09T001802		0	0	Clarity	LIQUID	N/A	Clear							Q
1 SAMPLE	S09T001802		0	0	Dose Rate	LIQUID	N/A	110				mRem/hr			Q
1 SAMPLE	S09T001802		0	0	Etched Number	LIQUID	N/A	6AW-08-04B							
1 SAMPLE	S09T001802		0	0	Organic Volume Present	LIQUID	N/A	0				mL			Q
1 SAMPLE	S09T001802		0	0	Photography	LIQUID	N/A	Complete							
1 SAMPLE	S09T001802		0	0	Amount of Sample Present	LIQUID	N/A	304.1				g			Q
1 SAMPLE	S09T001802		0	0	Seal Number	LIQUID	N/A	10787							
1 SAMPLE	S09T001802		0	0	Volume % Settled Solids	LIQUID	N/A	0				%			Q
1 SAMPLE	S09T001802		0	0	Volume of Sample	LIQUID	N/A	250				mL			Q

### Comments Section:

Data Flagger Status:  
Flagging Completed

Final Page for Batch# 00014142

  
Reviewer Signature M. A. Purcell Date 5/5/09

**FAXED**

RR7 5-5-09

5/5/2009 1:31:30PM  
IncompleteBatchLong Version 2.7.22  
batchreports 2.7.25

Page: 1

## LABCORE Data Entry Template for Batch# 00014142

Analyst: McColloch, Todd

Standard ID / Book#:

Instrument:

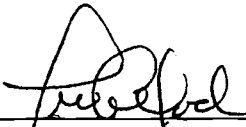
Method: BREAKDOWN PIG - HC, LA-519-151 Rev/Mod J-0

Prep Batch:

Batch Comment:

GROUP#	PROJECT	S	TYPE	SAMPLE	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
20090163	AW106 EV	1	SAMPLE	S09T001802	0		Record Appearance	LIQUID	N/A	SEE NOTE		
20090163	AW106 EV	1	SAMPLE	S09T001802	0		Color	LIQUID	N/A	Yellow		
20090163	AW106 EV	1	SAMPLE	S09T001802	0		Clarity	LIQUID	N/A	Clear		
20090163	AW106 EV	1	SAMPLE	S09T001802	0		Dose Rate	LIQUID	N/A	110		mRem/hr
20090163	AW106 EV	1	SAMPLE	S09T001802	0		Etched Number	LIQUID	N/A	6AW-08-04B		
20090163	AW106 EV	1	SAMPLE	S09T001802	0		Organic Volume Present	LIQUID	N/A	0		mL
20090163	AW106 EV	1	SAMPLE	S09T001802	0		Photography	LIQUID	N/A	Complete		
20090163	AW106 EV	1	SAMPLE	S09T001802	0		Amount of Sample Present	LIQUID	N/A	304.1		g
20090163	AW106 EV	1	SAMPLE	S09T001802	0		Seal Number	LIQUID	N/A	10787		
20090163	AW106 EV	1	SAMPLE	S09T001802	0		Volume % Settled Solids	LIQUID	N/A	0		%
20090163	AW106 EV	1	SAMPLE	S09T001802	0		Volume of Sample	LIQUID	N/A	250		mL

Final Page for Batch# 00014142

  
Analyst Signature

5-5-09

Date

Data Entry Signature

Date

**FAXED**

DM 5-5-09

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Batch Slot Number,  
R = Retest Number, A = Aliquot Code.

### LABCORE Completed Batch Report for Batch# 00014142

Seq	Sample#	QC Type	Assoc. Sample	Sample Group	Customer Id	Specification
1	S09T001802	SAMPLE		20090163	6AW-08-04B	AW106 EVAP3

133

RPP-RPT-40709 Rev. 1

FAXED  
DM 5-5-09

Project Coordinator: G-S. Klinger

## HCBRKDWN / PIG - VOL% SETTLED SOLIDS

OmniLIMS # 509T001802Balance: LE-BAL # 97 Weights: 20.004 Weights: 500.040Seal Num: 10787 Etch Num: 6AW-08-046 Dose Rate: 110Lab Core # 509T001802Bottle Full: Y X NHt. of Sample: 125 mmHt. of Solids: Ø mmVol. % StlSlds: < 2 %Sample Volume: 250 mLOrganic Vol. Ø mLColor Liquid: YellowClarity: ClearColor Solids: None Trace Solids: Y N XVolume Amount of Sample: 250 mLGross Wt: 478.1 g  
174  
Tare Wt.: 478.4 g <sup>3909</sup>Net Wt.: 304.1 gNalgene Plastic Bottles 60mL = 14.6 g / Eagle Pitcher (Black Lid Jars) 125mL = 131 g / Wheaten: (White Lid Jars) 500mL = 200 g

<u>I-Chem.: (Blue Lid Jars)</u>	<u>/ Spec. Wide Mouth: (Light Blue Lids)</u>	<u>/ Amber, Small-Neck Bottles</u>	<u>/ Clear, Small-Neck Bottles</u>
250mL = 159 g	500mL = 294 g	125 mL = 95 g 250 mL = 174 g	125mL = 108 g 250mL = 174 g

Photography Complete: Yes

APPEAR01: Received a full 250ml bottle of clear yellow liquid. No solids  
visible. No organic layer visible.

Analyst: [Signature] Date: 3/9/09

INORGANIC RAW DATA

## LABCORE Completed Batch Report for Batch# 00013353

Analyst: Jackson, David

Book#: 59112B

Instrument: LE-BAL-097

Method: SPG - LIQUID (HC), LA-510-112 Rev/Mod I-0

Specification: AW106 EVAP3

Prep Batch:

Batch Comment: AW-106 EVAP3 Hotcell Specific Gravity

Seq Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
Sample Sequence 1															
1 STD	S0903110071		0	0	Specific Gravity	LIQUID	1.3986	1.387			1.00E-03	Sp.G.	99.171	% Recovery	
Sample Sequence 2															
2 SAMPLE	S09T001770		0	0	Specific Gravity	LIQUID	N/A	1.208			1.00E-03	Sp.G.			
Sample Sequence 3															
3 DUP	S0903110077	S09T001770	0	0	Specific Gravity	LIQUID	1.208	1.204			1.00E-03	Sp.G.	0.33167	% RPD	
Sample Sequence 4															
4 SAMPLE	S09T001778		0	0	Specific Gravity	LIQUID	N/A	1.21			1.00E-03	Sp.G.			
Sample Sequence 5															
5 SAMPLE	S09T001790		0	0	Specific Gravity	LIQUID	N/A	1.218			1.00E-03	Sp.G.			
Sample Sequence 6															
6 SAMPLE	S09T001802		0	0	Specific Gravity	LIQUID	N/A	1.22			1.00E-03	Sp.G.			

### Comments Section:

Data Flagger Status:  
Flagging Completed

Final Page for Batch# 00013353

Reviewer Signature M.A. Purcell Date 3/12/09

QA: [Signature]

**FAXED**  
3/12/09



### LABCORE Completed Batch Report for Batch# 00013353

Seq	Sample#	QC Type	Assoc. Sample	Sample Group	Customer Id	Specification
1	S0903110071	STD				
2	S09T001770	SAMPLE		20090162	6AW-08-01	AW106 EVAP3
3	S0903110077	DUP	S09T001770			
4	S09T001778	SAMPLE		20090162	6AW-08-02B	AW106 EVAP3
5	S09T001790	SAMPLE		20090162	6AW-08-03B	AW106 EVAP3
6	S09T001802	SAMPLE		20090163	6AW-08-04B	AW106 EVAP3

03/11/2009 09:30 FAX 509 313 1438

RPP1RPP140709R644 LAB

03/02

FAXED  
3/12/09  
14

3/11/2009 2:18:58PM

IncompleteBatchLong Version 2.7.22

batchreports 2.7.25

Page: 1

## LABCORE Data Entry Template for Batch# 00013353

Analyst: Jackson, David

Standard ID / Book#:

59N12B

Instrument: LE-BAL-097

Method: SPG - LIQUID (HC), LA-510-112 Rev/Mod I-0

Prep Batch:

Batch Comment: AW-106 EVAP3 Hotcell Specific Gravity

GROUP#	PROJECT	S	TYPE	SAMPLE	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD		0		Specific Gravity	LIQUID	1.3986	1.387	N/A	Sp.G.
20090162	AW106 EV	2	SAMPLE	S09T001770	0		Specific Gravity	LIQUID	N/A	1.208		Sp.G.
		3	DUP	S09T001770	0		Specific Gravity	LIQUID	1.208	1.204	N/A	Sp.G.
20090162	AW106 EV	4	SAMPLE	S09T001778	0		Specific Gravity	LIQUID	N/A	1.210		Sp.G.
20090162	AW106 EV	5	SAMPLE	S09T001790	0		Specific Gravity	LIQUID	N/A	1.218		Sp.G.
20090163	AW106 EV	6	SAMPLE	S09T001802	0		Specific Gravity	LIQUID	N/A	1.220		Sp.G.

## Final Page for Batch# 00013353

Analyst Signature

Date

Data Entry Signature

Date

D.R. Jackson

D. Jackson

3-11-2009

FAXED  
 3/11/09  
 12:01 PM

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Batch Slot Number, R = Retest Number, A = Aliquot Code.

SPECIFIC GRAVITY WORKSHEET						
Batch #: 00013353			Project: AW106 EVAP3			
Cell Temperature (°C): 25.5		Standard Book #: 59N12B		Value (g/mL): 1.3986		
Sample ID	OmniLIMS #	Volume mL	Tare Wt. g	Gross Wt. g	Net Wt. g	Density g/mL
Standard	Standard	5.000	8.745	15.679	6.934	1.387
6AW-08-01	S09T001770	5.000	8.632	14.674	6.042	1.208
6AW-08-01	Duplicate	5.000	8.926	14.944	6.018	1.204
6AW-08-02B	S09T001778	5.000	7.696	13.745	6.049	1.210
6AW-08-03B	S09T001790	5.000	8.541	14.631	6.090	1.218
6AW-08-04B	S09T001802	5.000	8.727	14.827	6.100	1.220
					Average:	1.212
					StdDev:	0.007

Verified by:

M. A. Purcell

Print Name



Signature

3/12/2009

Date

**RECEIVED**  
**FAXED**

## SPECIFIC GRAVITY WORKSHEET

Batch #: \_\_\_\_\_

Project: **AW106 EVAP3**Cell Temperature (°F): <sup>111</sup>311/09 25.5°C

Standard Book #: 59N1213

Value (g/mL): 1.3986

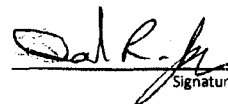
		Volume	Tare Wt.	Gross Wt.	Net Wt.	Density
Sample ID	OmniLIMS #	mL	g	g	g	g/mL
Standard	Standard	5	8.745	15.649	6.934	1.387
6AW-08-01	S09T001770	5	8.632	14.674	6.042	1.208
6AW-08-01	Duplicate	5	8.926	14.944	6.018	1.204
6AW-08-02B	S09T001778	5	7.696	13.745	6.049	1.210
6AW-08-03B	S09T001790	5	8.541	14.631	6.090	1.218
6AW-08-04B	S09T001802	5	8.727	14.827	6.100	1.220
					Average:	1.212
					StdDev:	0.0068

99.2%

Performed by:

D.R. Jackson

Print Name


  
Signature
3-11-2009

Date

**FAXED**  
 3/11/09  
 167

## LABCORE Completed Batch Report for Batch# 00013293

**Analyst:** Purinton, Tony

**Book#:** *Same bench sheet*

**Instrument:** PH02

**Method:** PH LIQUID, LA-212-106 Rev/Mod G-0

**Specification:** AW106 EVAP3

**Prep Batch:** *NA*

**Batch Comment:** Ph for AW106 adp

Seq Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
Sample Sequence 1															
1 ICVPH	S0903060011		0	0	pH	LIQUID	12	12			0.01	pH			
Sample Sequence 2															
2 SAMPLE	S09T001751		0	0	pH	LIQUID	N/A	10.17			0.01	pH			
Sample Sequence 3															
3 DUP	S0903060013	S09T001751	0	0	pH	LIQUID	10.17	10.15			0.01	pH	0.19685	% RPD	
Sample Sequence 4															
4 SAMPLE	S09T001762		0	0	pH	LIQUID	N/A	6.75			0.01	pH			
Sample Sequence 5															
5 SAMPLE	S09T001783		0	0	pH	LIQUID	N/A	13.43			0.01	pH			
Sample Sequence 6															
6 CCVPH	S0903060014		0	0	pH	LIQUID		12.01			0.01	pH			

### Comments Section:

Data Flagger Status:  
Flagging Completed

**Final Page for Batch# 00013293**

*[Signature]*  
Reviewer Signature

*3/16/09*  
Date

*2nd Reviewer: Brian D. Smith 3/16/09*

*QA: Lfg Smith 3/17/09*  
*PM: Ag D 72 3/17/09*

RPP-RPT-40709 Rev. 1

## LABCORE Completed Batch Report for Batch# 00013293

Seq	Sample#	QC Type	Assoc. Sample	Sample Group	Customer Id	Specification
1	S0903060011	ICVPH				
2	S09T001751	SAMPLE		20090162	6AW-08-01FB1	AW106 EVAP3
3	S0903060013	DUP	S09T001751			
4	S09T001762	SAMPLE		20090162	6AW-08-01FB2	AW106 EVAP3
5	S09T001783	SAMPLE		20090162	6AW-08-02B	AW106 EVAP3
6	S0903060014	CCVPH				

LABCORE Data Entry Template for Batch# 00013293

Analyst: Purinton, Tony

Standard ID / Book#: 12 - #1807949

Instrument: PH02

Method: PH LIQUID, LA-212-106 Rev/Mod 40

Prep Batch:

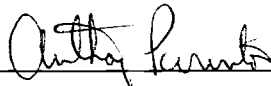
Batch Comment: Ph for AW106 adp

GROUP#	PROJECT	S	TYPE	SAMPLE	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	ICVPH		0		pH	LIQUID	12.00	12.04	N/A	pH
20090162	AW106 EV	2	SAMPLE	S09T001751	0		pH	LIQUID	N/A	10.17		pH
		3	DUP	S09T001751	0		pH	LIQUID	10.17	10.15	N/A	pH
20090162	AW106 EV	4	SAMPLE	S09T001762	0		pH	LIQUID	N/A	6.75		pH
20090162	AW106 EV	5	SAMPLE	S09T001783	0		pH	LIQUID	N/A	13.43		pH
		6	CCVPH		0		pH	LIQUID	12.00	12.01	N/A	pH

Final Page for Batch# 00013293

  
Analyst Signature

3/5/09  
Date

  
Data Entry Signature

Date

Data Entry Comments:

PROJECT: AW 106LA-212-106 pH G-O WORKLIST: 13293 ANALYST: ADP

Rev/Mod

Standard Book # 1807949LIQUID ADDITION START DATE/TIME: 3/5/2009 17:30ANALYSIS COMPLETION DATE/TIME: 3/5/2009 ###

Sample Number Type (sam, dup)	Temperature	pH		Comments	
		Measured	Actual		
Calibration 1	72	10.04	10	SLOPE: 100 #9007	
Calibration 2	72	13.02	13	#	1901322
ICV	72	12.04	12	#	1807949
S09T001751	72	10.17	-----		
S09T001751 DUF	72	10.15			
S09T001762	72	6.75			
S09T001783	72	13.43			
CCV	72	12.01			

Additional Comments \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



## LABCORE Completed Batch Report for Batch# 00013254

**Analyst:** Hood, Boatright Sandra

**Book#:** See bench sheet

**Instrument:** PH02

**Method:** PH LIQUID, LA-212-106 Rev/Mod G-0

**Specification:** AW106 EVAP3

**Prep Batch:** A/A

**Batch Comment:** AW 106 EVAP pH

Seq Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
Sample Sequence 1															
1 ICVPH	S0903040023		0	0	pH	LIQUID	10	10.05			0.01	pH			
Sample Sequence 2															
2 SAMPLE	S09T001772		0	0	pH	LIQUID	N/A	>13.5			0.01	pH			J
Sample Sequence 3															
3 DUP	S0903040025	S09T001772	0	0	pH	LIQUID	>13.5	>13.5			0.01	pH			
Sample Sequence 4															
4 SAMPLE	S09T001795		0	0	pH	LIQUID	N/A	>13.5			0.01	pH			J
Sample Sequence 5															
5 CCVPH	S0903040026		0	0	pH	LIQUID	10	10.05			0.01	pH			

### Comments Section:


Data Flagger Status:  
Flagging Completed

### Final Page for Batch# 00013254

  
Reviewer Signature

3/10/09  
Date

QA:  3/17/09

Lab Reviewer:  3/10/09

PM: Reg A. Kyr 3/17/09

### LABCORE Completed Batch Report for Batch# 00013254

Seq	Sample#	QC Type	Assoc. Sample	Sample Group	Customer Id	Specification
1	S0903040023	ICVPH				
2	S09T001772	SAMPLE		20090162	6AW-08-01	AW106 EVAP3
3	S0903040025	DUP	S09T001772			
4	S09T001795	SAMPLE		20090162	6AW-08-03B	AW106 EVAP3
5	S0903040026	CCVPH				

3/4/2009 9:56:22PM

IncompleteBatchShort Version 2.7.22

batchreports 2.7.25

Page: 1

## LABCORE Data Entry Template for Batch# 00013254

Analyst: Hood, Boatright Sandra

Standard ID / Book#: *see bench sheet*

Instrument: PH02

Method: PH LIQUID, *212-106* Rev/Mod *GE*

Prep Batch:

Batch Comment: AW 106 EVAP pH

S	Type	Sample	R	A	Matrix	Group#	Project
1	ICVPH		0		LIQUID		
	Analytes Requested: pH						
2	SAMPLE	S09T001772	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested: pH						
3	DUP	S09T001772	0		LIQUID		
	Analytes Requested: pH						
4	SAMPLE	S09T001795	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested: pH						
5	CCVPH		0		LIQUID		
	Analytes Requested: pH						

## Final Page for Batch# 00013254

*Sandra Hood Boatright*  
 Analyst Signature \_\_\_\_\_ Date *3-4-09*

*Sandra Hood Boatright*  
 Data Entry Signature \_\_\_\_\_ Date *3-5-09*

Data Entry Comments:

S = Batch Slot Number, R = Retest Number, A = Aliquot Code.



## LABCORE Completed Batch Report for Batch# 00013323

**Analyst:** Purinton, Tony

**Book#:** See bench Sheet

**Instrument:** PH02

**Method:** PH LIQUID, LA-212-106 Rev/Mod G-0

**Specification:** AW106 EVAP3

**Prep Batch:**

**Batch Comment:** 2009 AW106 Evap Ph


149

Seq Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
Sample Sequence 1															
1 ICVPH	S0903090065		0	0	pH	LIQUID	10	10.05			0.01	pH			
Sample Sequence 2															
2 SAMPLE	S09T001807		0	0	pH	LIQUID	N/A	13.45			0.01	pH			
Sample Sequence 3															
3 DUP	S0903090067	S09T001807	0	0	pH	LIQUID	13.45	13.46			0.01	pH	0.074322	% RPD	
Sample Sequence 4															
4 CCVPH	S0903090068		0	0	pH	LIQUID	10	10.12			0.01	pH			

### Comments Section:


Data Flagger Status:  
 Flagging Completed

### Final Page for Batch# 00013323

 3/11/09  
 Reviewer Signature Date

2nd reviewer:  3/11/09

QA:  3.17.09

PM:  3/17/09

Units shown for QC (BLK/BKG) may not reflect the actual units.

RPP-RPT-40709 Rev. 1

### LABCORE Completed Batch Report for Batch# 00013323

Seq	Sample#	QC Type	Assoc. Sample	Sample Group	Customer Id	Specification
1	S0903090065	ICVPH				
2	S09T001807	SAMPLE		20090163	6AW-08-04B	AW106 EVAP3
3	S0903090067	DUP	S09T001807			
4	S0903090068	CCVPH				

150

RPP-RPT-40709 Rev. 1

3/9/2009 8:51:04PM

IncompleteBatchShort Version 2.7.22

batchreports 2.7.25

Page: 1

## LABCORE Data Entry Template for Batch# 00013323

Analyst: Purinton, Tony

Standard ID / Book#: See bench sheet

Instrument: PH02

Method: PH LIQUID, LA-212-106 Rev/Mod G-0

Prep Batch:

Batch Comment: 2009 AW106 Evap Ph

S	Type	Sample	R	A	Matrix	Group#	Project
1	ICVPH		0		LIQUID		
	Analytes Requested: pH						
2	SAMPLE	S09T001807	0		LIQUID	20090163	AW106 EVAP3
	Analytes Requested: pH						
3	DUP	S09T001807	0		LIQUID		
	Analytes Requested: pH						
4	CCVPH		0		LIQUID		
	Analytes Requested: pH						

## Final Page for Batch# 00013323

Tracy Maling

Analyst Signature

3/09/09

Date

Tracy Maling

Data Entry Signature

3/09/09

Date

Data Entry Comments:

S = Batch Slot Number, R = Retest Number, A = Aliquot Code.

Rev/Mod

ANALYSIS COMPLETION DATE/TIME: 3/09/09 / 1900

Additional Comments \_\_\_\_\_



## LABCORE Completed Batch Report for Batch# 00013294

**Analyst:** Purinton, Tony  
**Instrument:** Metrohm Titrator  
**Method:** OH, LA-211-102 Rev/Mod 1-0  
**Specification:** AW106 EVAP3  
**Prep Batch:**  
**Batch Comment:** AW 106 FOR Oh ADP

**Book#:** 62N15A

Seq Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
Sample Sequence 1															
1 STD	S0903060015		0	0	Hydroxide	LIQUID	16230	1.5719E+04			2.50E+03	ug/mL	96.852	% Recovery	
Sample Sequence 2															
2 BLNK	S0903060016		0	0	Hydroxide	LIQUID		<4.1700E+01			41.7	ug/mL			
Sample Sequence 3															
3 SAMPLE	S09T001784		0	0	Hydroxide	LIQUID	N/A	8.3852E+03			2.50E+03	ug/mL			
Sample Sequence 4															
4 DUP	S0903060017	S09T001784	0	0	Hydroxide	LIQUID	8.3852E+03	7.9795E+03			2.50E+03	ug/mL	4.9581	% RPD	
Sample Sequence 5															
5 SPK	S0903060018	S09T001784	0	0	Hydroxide	LIQUID	16230	2.3878E+04			2.50E+03	ug/mL	95.457	% Recovery	
Sample Sequence 6															
6 CCV	S0903060021		0	0	Hydroxide	LIQUID	16230	1.6118E+04			2.50E+03	ug/mL	99.309	% Recovery	
Sample Sequence 7															
7 CCB	S0903060022		0	0	Hydroxide	LIQUID		<4.1700E+01			41.7	ug/mL			



### Comments Section:

Data Flagger Status:  
Flagging Completed

### Final Page for Batch# 00013294

  
Reviewer Signature Date

And Reviewer:  3/10/09

PM:  3/17/09  
QA:  3.17.09

RPP-RPT-40709 Rev. 1

## LABCORE Completed Batch Report for Batch# 00013294

Seq	Sample#	QC Type	Assoc. Sample	Sample Group	Customer Id	Specification
1	S0903060015	STD				
2	S0903060016	BLNK				
3	S09T001784	SAMPLE		20090162	6AW-08-02B	AW106 EVAP3
4	S0903060017	DUP	S09T001784			
5	S0903060018	SPK	S09T001784			
6	S0903060021	CCV				
7	S0903060022	CCB				

LABCORE Data Entry Template for Batch# 00013294

Analyst: Purinton, Tony

Standard ID / Book#: 62N15A

Instrument: Metrohm Titrator

Method: OH, LA-211-102 Rev/Mod I-0

Prep Batch:

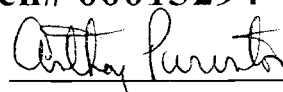
Batch Comment: AW 106 FOR Oh ADP

S	Type	Sample	R	A	Matrix	Group#	Project
1	STD		0		LIQUID		
	Analytes Requested:	Hydroxide					
2	BLNK		0		LIQUID		
	Analytes Requested:	Hydroxide					
3	SAMPLE	S09T001784	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Hydroxide					
4	DUP	S09T001784	0		LIQUID		
	Analytes Requested:	Hydroxide					
5	SPK	S09T001784	0		LIQUID		
	Analytes Requested:	Hydroxide					
6	CCV		0		LIQUID		
	Analytes Requested:	Hydroxide					
7	CCB		0		LIQUID		
	Analytes Requested:	Hydroxide					

Final Page for Batch# 00013294

  
Analyst Signature

3/5/09  
Date

  
Data Entry Signature

3/6/09

Date

Data Entry Comments:

## Determination of Free OH-/H+ Using Metrohm 682 Titroprocessor

LA-211-102 Rev.      Project **AW106 EVAP**      Worklist  
 Analyst Tony Purinton      Date 09-03-05      Analysis Start Time 17:00  
 Analysis Completion Time 20:00

Pipette #(s):	4476811	<input checked="" type="checkbox"/>	T809	<input checked="" type="checkbox"/>
(Check box if pipette passes visual verification)	4430821	<input checked="" type="checkbox"/>		<input type="checkbox"/>

OH Standard Number/Volume (mL): 62N15A      /      0.05

Spike Number/Volume (mL): 62N15A      /      0.05

Molarity of Titrant: 0.1985

Sample ID #/Type (Sam, Dup)	Sample Volume (mL)	EP 1 Reading (mL)	Comments
Standard	0.05	0.2328	
Blank	3	0.0036	
S09T001784	0.05	0.1242	
S09T001784 DUP	0.05	0.1182	
SO9T001784 SPK	0.05	0.3536	
CCV	0.05	0.237	
CCB	3	0.0057	

Additional Comments:

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---

---

Program version tiarno 1.1 - 36  
2009-03-05 8:04:23 PM UTC-

### Determination

Method . . . . . pH 7-10 Calibration  
Determination start . . . . . 2009-03-05 18:01:41 UTC-8  
User (full name) . . . . . Tony Purinton

## Results

Cal Slope	98.80 %
Temperature	20.0 °C



User adp

Program version tiamo 1.1 - 36

2009-03-05 17:50 PM UTC-

## Results report

### Sample data

Sample ID .....  
 Sample size, mL ..... 0.050  
 Standard Number ..... 62N15A  
 Standard Value ..... 16230

### Determination

Method ..... OH Std  
 Determination start ..... 2009-03-05 18:14:57 UTC-8  
 User (full name) ..... Tony Purinton  
 User (short name) ..... adp

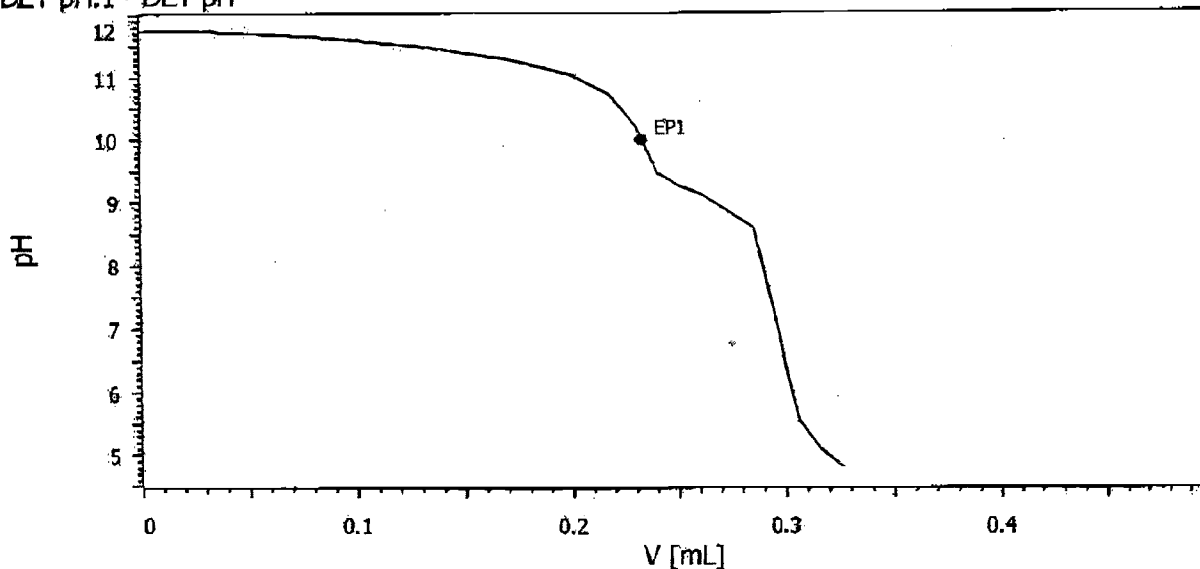
### End points

DET pH DET pH.1  
 EP1 ..... 9.988 pH ..... 0.2328 mL

### Results

OH ..... 15719.04 ppm  
 Molarity of Titrant ..... 0.1985 mol/L  
 Temperature ..... 20.3 °C

DET pH.1 - DET pH





User adp

Program version tiamo 1.1 - 36

2009-03-05 21:28 PM UTC-

## Results report

### Sample data

Sample ID ..... BLANK  
Sample size, mL ..... 3

### Determination

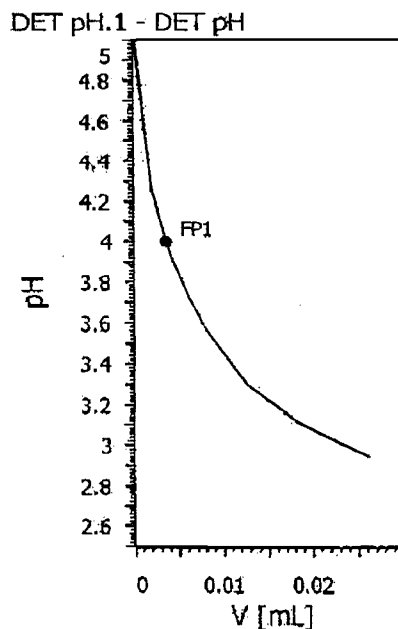
Method ..... OH Blank  
Determination start ..... 2009-03-05 18:20:10 UTC-8  
User (full name) ..... Tony Purinton  
User (short name) ..... adp

### End points

DET pH DET pH.1  
FP1 ..... 4.000 pH ..... 0.0036 mL  
FP2 ..... invalid pH ..... invalid mL  
FP3 ..... invalid pH ..... invalid mL

### Results

OH ..... 19.9 °C  
Molarity of Titrant .....  
Temperature .....





Program version tiarno 1.1 - 36

User adp

2009-03-05 17:13 PM UTC-

## Results report

### Sample data

Sample ID ..... S09T001784  
Sample size, mL ..... 0.050

### Determination

Method ..... OH Sample  
Determination start ..... 2009-03-05 21:11:39 UTC-8  
User (full name) ..... Tony Purinton  
User (short name) ..... adp

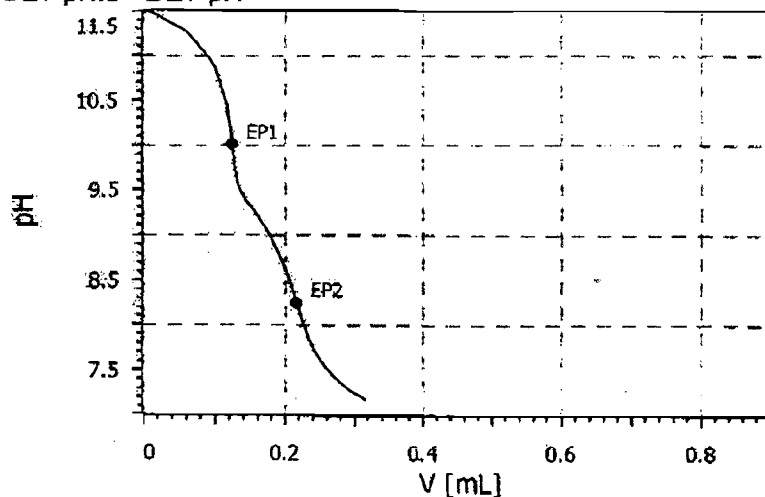
### End points

DET pH DET pH.1  
EP1 ..... 10.007 pH ..... 0.1242 mL  
EP2 ..... 8.246 pH ..... 0.2165 mL

### Results

OH ..... 8385.16 ppm  
Molarity of Titrant ..... 0.1985 mol/L  
Temperature ..... 20.0 °C  
Detection Limit ..... 553.40 ppm

DET pH.1 - DET pH







User adp

Program version tiamo 1.1 - 36

2009-03-05 18:40 PM UTC-

## Results report

### Sample data

Sample ID ..... S09T001774 <sup>784</sup> DUP  
 Sample size, mL ..... 0.050 <sup>ADP 3/5/09</sup>

### Determination

Method ..... OH Sample  
 Determination start ..... 2009-03-05 18:40:16 UTC-8  
 User (full name) ..... Tony Purinton  
 User (short name) ..... adp

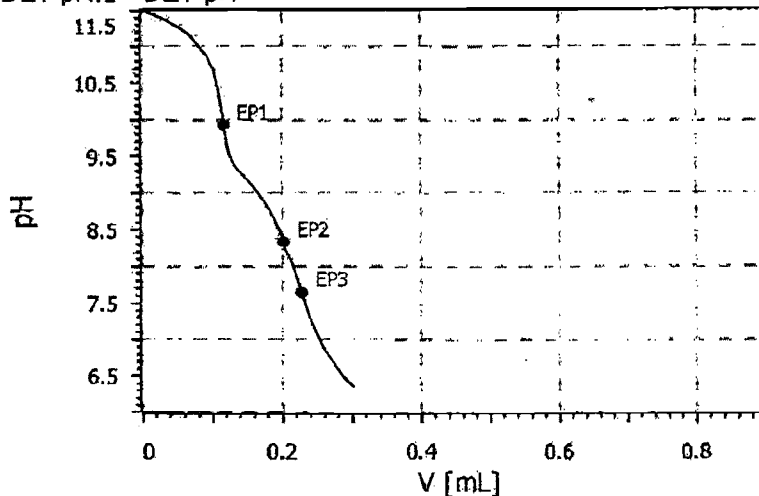
### End points

DET pH DET pH.1  
 EP1 ..... 9.933 pH ..... 0.1182 mL  
 EP2 ..... 8.330 pH ..... 0.2025 mL  
 EP3 ..... 7.646 pH ..... 0.2285 mL

### Results

OH ..... 7979.51 ppm  
 Molarity of Titrant ..... 0.1985 mol/L  
 Temperature ..... 20.2 °C  
 Detection Limit ..... 553.40 ppm

DET pH.1 - DET pH





Program version tiamo 1.1 - 36

User adp

2009-03-05 18:55:51 PM UTC-

## Results report

### Sample data

Sample ID ..... **S09T001774** <sup>784</sup> **SPK**  
 Sample size, mL ..... 0.050  
 Standard Number ..... 62N15A  
 Standard Value ..... 16230  
 Volume Spk used ..... 0.050

### Determination

Method ..... OH SPK  
 Determination start ..... 2009-03-05 18:50:55 UTC-8  
 User (full name) ..... Tony Purinton  
 User (short name) ..... adp

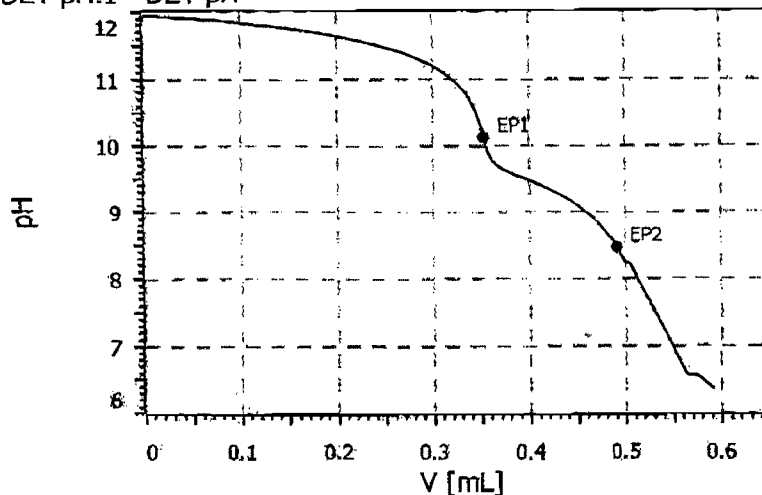
### End points

DET pH DET pH.1  
 EP1 ..... 10.119 pH ..... 0.3536 mL  
 EP2 ..... 8.458 pH ..... 0.4911 mL

### Results

OH ..... 23877.75 ppm  
 Molarity of Titrant ..... ~~103.44~~ %  
 Temperature .....  
 Detection Limit ..... 19.8 °C

DET pH.1 - DET pH





User adp

Program version tiamo 1.1 - 36

2009-03-05 10:20:28 PM

## Results report

### Sample data

Sample ID ..... 62N15A CCV  
 Sample size, mL ..... 0.050  
 Standard Number ..... 62N25A  
 Standard Value ..... 16230

### Determination

Method ..... OH Std  
 Determination start ..... 2009-03-05 22:16:31 UTC-8  
 User (full name) ..... Tony Purinton  
 User (short name) ..... adp

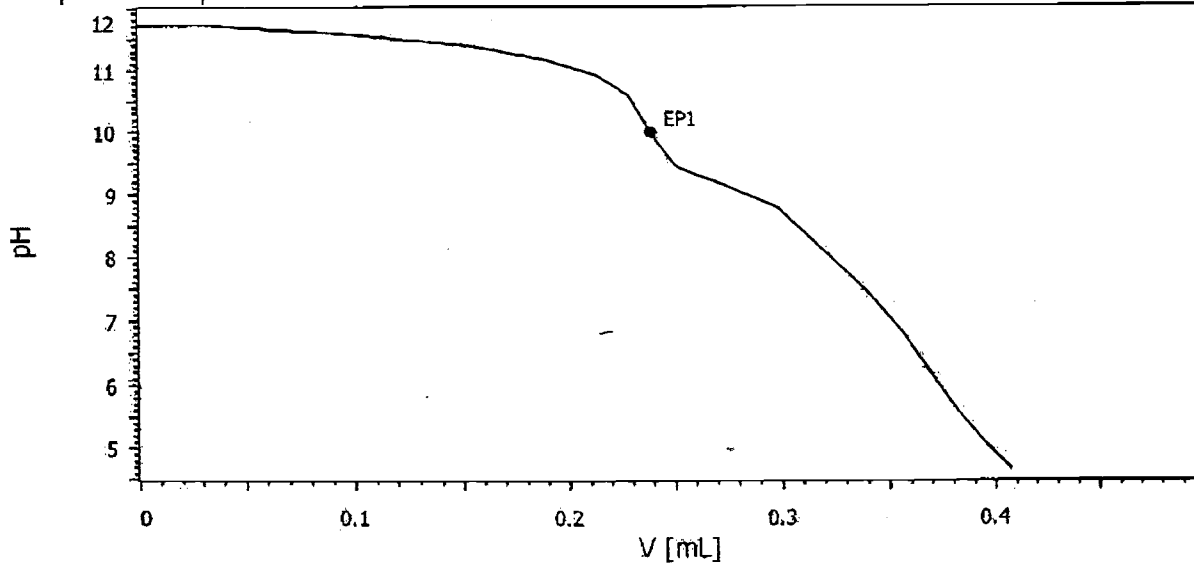
### End points

DET pH DET pH.1  
 EP1 ..... 10.010 pH ..... 0.2387 mL

### Results

OH ..... 16117.89 ppm  
 Molarity of Titrant ..... 0.1985 mol/L  
 Temperature ..... 19.7 °C

DET pH.1 - DET pH





Program version tiamo 1.1 - 36

User adp

2009-03-05 10:28:48 PM

## Results report

### Sample data

Sample ID ..... **BLANK**  
Sample size, mL ..... 3

### Determination

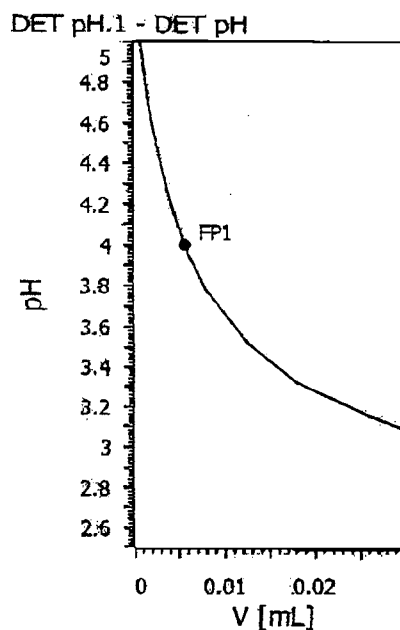
Method ..... OH Blank  
Determination start ..... 2009-03-05 22:27:13 UTC-8  
User (full name) ..... Tony Purinton  
User (short name) ..... adp

### End points

DET pH DET pH.1  
FP1 ..... 4.000 pH ..... 0.0057 mL  
FP2 ..... invalid pH ..... invalid mL  
FP3 ..... invalid pH ..... invalid mL

### Results

OH ..... 19.3 °C  
Molarity of Titrant .....  
Temperature .....



## LABCORE Completed Batch Report for Batch# 00013269

**Analyst:** Edwards, Cheryl  
**Instrument:** Metrohm Titrator  
**Method:** OH, LA-211-102 Rev/Mod I-0  
**Specification:** AW106 EVAP3  
**Prep Batch:** ~~AW~~  
**Batch Comment:** AW 106 EVAP3 OH

**Book#:** 62N15A

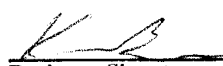
Seq Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
Sample Sequence 1															
1 STD	S0903050105		0	0	Hydroxide	LIQUID	16230	1.5400E+04			2.50E+03	ug/mL	94.886	% Recovery	
Sample Sequence 2															
2 BLNK	S0903050106		0	0	Hydroxide	LIQUID		<4.1700E+01			41.7	ug/mL			
Sample Sequence 3															
3 SAMPLE	S09T001796		0	0	Hydroxide	LIQUID	N/A	7.9500E+03			2.50E+03	ug/mL			
Sample Sequence 4															
4 DUP	S0903050110	S09T001796	0	0	Hydroxide	LIQUID	7.9500E+03	8.0100E+03			2.50E+03	ug/mL	0.75188	% RPD	
Sample Sequence 5															
5 SPK	S0903050108	S09T001796	0	0	Hydroxide	LIQUID	16230	2.3600E+04			2.50E+03	ug/mL	96.426	% Recovery	
Sample Sequence 6															
6 SAMPLE	S09T001773		0	0	Hydroxide	LIQUID	N/A	7.5600E+03			2.50E+03	ug/mL			
Sample Sequence 7															
7 CCV	S0903050111		0	0	Hydroxide	LIQUID	16230	1.5900E+04			2.50E+03	ug/mL	97.967	% Recovery	
Sample Sequence 8															
8 CCB	S0903050112		0	0	Hydroxide	LIQUID		<4.1700E+01			41.7	ug/mL			

### Comments Section:

Data Flagger Status:  
Flagging Completed

## LABCORE Completed Batch Report for Batch# 00013269

### Final Page for Batch# 00013269

 3/5/09  
Reviewer Signature Date

2nd reviewer: Brian D. Dault 3/5/09

PM: Dy A 74 3/17/09

QA:  3.17.09



### LABCORE Completed Batch Report for Batch# 00013269

Seq	Sample#	QC Type	Assoc. Sample	Sample Group	Customer Id	Specification
1	S0903050105	STD				
2	S0903050106	BLNK				
3	S09T001796	SAMPLE		20090162	6AW-08-03B	AW106 EVAP3
4	S0903050110	DUP	S09T001796			
5	S0903050108	SPK	S09T001796			
6	S09T001773	SAMPLE		20090162	6AW-08-01	AW106 EVAP3
7	S0903050111	CCV				
8	S0903050112	CCB				

LABCORE Data Entry Template for Batch# 00013269

Analyst: Edwards, Cheryl

Standard ID / Book#: 62N15A

Instrument: Metrohm Titrator

Method: OH, 211-102 Rev/Mod I-0

Prep Batch: NA

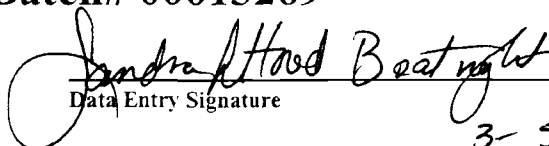
Batch Comment: AW 106 EVAP3 OH

S	Type	Sample	R	A	Matrix	Group#	Project
1	STD		0		LIQUID		
	Analytes Requested:	Hydroxide					
2	BLNK		0		LIQUID		
	Analytes Requested:	Hydroxide					
3	SAMPLE	S09T001796	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Hydroxide					
4	DUP	S09T001796	0		LIQUID		
	Analytes Requested:	Hydroxide					
5	SPK	S09T001796	0		LIQUID		
	Analytes Requested:	Hydroxide					
6	SAMPLE	S09T001773	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Hydroxide					
7	CCV		0		LIQUID		
	Analytes Requested:	Hydroxide					
8	CCB		0		LIQUID		
	Analytes Requested:	Hydroxide					

Final Page for Batch# 00013269

  
Analyst Signature

3/5/09  
Date

  
Data Entry Signature

Date

3-5-09

Data Entry Comments:



PROJECT: EVAP AWO-106

LA-211-102 OH (Auto)

WORKLIST 13269 ANALYST CEDATE 3/4/09TIME 0945

OH Standard Number / Volume (mL)	<u>62N15A 1.05 ml</u>
Spike Number / Volume (mL)	<u>62N15A 1.05 ml</u>
Molarity of Titrant	<u>0.1985</u>

Sample Number Type (sam, dup)	Sample Volume (mL)	EP 1 Reading (mL)	Comments
Standard (CCV)	0.05	0.2283	
Blank	3.0	0.0030	
509T001795	0.05	0.1178	
509T001795 D	0.05	0.1187	
509T001795 Spk	0.05	0.3492	
509T001773	0.05	0.1120	
CCV	0.05	0.2349	
CCB	3.0	0.0026	

Additional Comments



# Spreadsheet For the Calculation of Hydroxide

OH (AUTO)

Rev-Mod of Procedure Used		
H-0		STD
Type	Sample Size (mL)	0.050
STD	Concentration of Titrant (Molarity)	0.1985
Batch #	Titrant volume at end-point in mL	0.228
13269	***Enter Dilution Factor or 1***	1
Test Code		
OH	Concentration of Sample (MOLARITY)	9.06E-01
Matrix	Concentration of Sample in PPM	1.54E+04
Liquid		
Sample #	Detection Limit (PPM)	
62N15A		
Instrument Code		
OH-1		
Analyst		
CE		
Date Analyzed		
3/4/09		STD
Time	Concentration of Sample (MOLARITY)	9.06E-01
9:50PM	Concentration of Sample in PPM	1.54E+04

\* The specific formulae used in the calculation for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

*Handwritten signature and date: 3/5/09*



## Spreadsheet For the Calculation of Hydroxide

OH (AUTO)

Rev-Mod of Procedure Used		
H-0		BLK
Type	Sample Size (mL)	3.000
BLK	Concentration of Titrant (Molarity)	0.1985
Batch #	Titrant volume at end-point in mL	0.003
13269	***Enter Dilution Factor or 1***	1
Test Code		
OH	Concentration of Sample (MOLARITY)	1.99E-04
Matrix	Concentration of Sample in PPM	3.37E+00
Liquid		
Sample #	Detection Limit (PPM)	4.17E+01
BLNK		
Instrument Code		
OH-1		
Analyst		
CE		
Date Analyzed		
3/4/09		BLK
Time	Concentration of Sample (MOLARITY)	1.99E-04
9:50PM	Concentration of Sample in PPM	<41.6666666666667

\* The specific formulae used in the calculation for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

*KD*  
*3/5/09*



## Spreadsheet For the Calculation of Hydroxide

OH (AUTO)

Rev-Mod of Procedure Used		
H-0		Sample #
Type	Sample Size (mL)	0.050
Sample #	Concentration of Titrant (Molarity)	0.1985
Batch #	Titrant volume at end-point in mL	0.118
13269	***Enter Dilution Factor or 1***	1
Test Code		
OH	Concentration of Sample (MOLARITY)	4.68E-01
Matrix	Concentration of Sample in PPM	7.95E+03
Liquid		
Sample #	Detection Limit (PPM)	2.50E+03
S09T001796		
Instrument Code		
OH-1		
Analyst		
CE		
Date Analyzed		
3/4/09		Sample #
Time	Concentration of Sample (MOLARITY)	4.68E-01
9:50PM	Concentration of Sample in PPM	7.95E+03

\* The specific formulae used in the calculation for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

3/5/09



# Spreadsheet For the Calculation of Hydroxide

OH (AUTO)

Rev-Mod of Procedure Used		
H-0		
Type	Sample Size (mL)	Dup
Dup	Concentration of Titrant (Molarity)	0.050
Batch #	Titrant volume at end-point in mL	0.1985
13269	***Enter Dilution Factor or 1***	0.119
Test Code		1
OH	Concentration of Sample (MOLARITY)	
Matrix	Concentration of Sample in PPM	4.71E-01
Liquid		8.01E+03
Sample #	Detection Limit (PPM)	2.50E+03
S09T001796	<p>* The specific formulae used in the calculation for this spreadsheet can be found in the applicable procedure, as identified on the worklist.</p>	
Instrument Code		
OH-1		
Analyst		
CE		
Date Analyzed		
3/4/09		Dup
Time	Concentration of Sample (MOLARITY)	4.71E-01
9:50PM	Concentration of Sample in PPM	8.01E+03

KL  
3/5/09



# Spreadsheet For the Calculation of Hydroxide

OH (AUTO)

Rev-Mod of Procedure Used		
H-0		
Type	Sample Size (mL)	Spk 0.050
Spk	Concentration of Titrant (Molarity)	0.1985
Batch #	Titrant volume at end-point in mL	0.349
13269	***Enter Dilution Factor or 1***	1
Test Code		
OH	Concentration of Sample (MOLARITY)	1.39E+00
Matrix	Concentration of Sample in PPM	2.36E+04
Liquid		
Sample #	Detection Limit (PPM)	2.50E+03
S09T001796		
Instrument Code		
OH-1	* The specific formulae used in the calculation for this spreadsheet can be found in the applicable procedure, as identified on the worklist.	
Analyst		
CE		
Date Analyzed		
3/4/09		Spk
Time	Concentration of Sample (MOLARITY)	1.39E+00
9:50PM	Concentration of Sample in PPM	2.36E+04

$$2.36E+04 - 7.95E+03$$

$$1.623E+04$$

$$\times 100 = 76.4\%$$

$$0.349 - 0.118$$

$$0.240$$

$$\times 100 = 96.2\% \quad 3/5/09$$

K B 3/5/09



# Spreadsheet For the Calculation of Hydroxide

OH (AUTO)

Rev-Mod of Procedure Used		
H-0		
Type	Sample Size (mL)	Sample #
		0.050
Sample #	Concentration of Titrant (Molarity)	0.1985
Batch #	Titrant volume at end-point in mL	0.112
13269	***Enter Dilution Factor or 1***	1
Test Code		
OH	Concentration of Sample (MOLARITY)	4.45E-01
Matrix	Concentration of Sample in PPM	7.56E+03
Liquid		
Sample #	Detection Limit (PPM)	2.50E+03
S09T001773		
Instrument Code		
OH-1	* The specific formulae used in the calculation for this spreadsheet can be found in the applicable procedure, as identified on the worklist.	
Analyst		
CE		
Date Analyzed		
3/4/09		Sample #
Time	Concentration of Sample (MOLARITY)	4.45E-01
9:50PM	Concentration of Sample in PPM	7.56E+03

*(Handwritten signature)*  
3/5/09



# Spreadsheet For the Calculation of Hydroxide

OH (AUTO)

Rev-Mod of Procedure Used		
H-0		
Type	Sample Size (mL)	CCV
		0.050
CCV	Concentration of Titrant (Molarity)	0.1985
Batch #	Titrant volume at end-point in mL	0.235
13269	***Enter Dilution Factor or 1***	1
Test Code		
OH	Concentration of Sample (MOLARITY)	9.33E-01
Matrix	Concentration of Sample in PPM	1.59E+04
Liquid		
Sample #	Detection Limit (PPM)	2.50E+03
62N15A		
Instrument Code		
OH-1	* The specific formulae used in the calculation for this spreadsheet can be found in the applicable procedure, as identified on the worklist.	
Analyst		
CE		
Date Analyzed		
3/4/09		CCV
Time	Concentration of Sample (MOLARITY)	9.33E-01
9:50PM	Concentration of Sample in PPM	1.59E+04

3/5/09





# Spreadsheet For the Calculation of Hydroxide

OH (AUTO)

Rev-Mod of Procedure Used		
H-0		CCB
Type	Sample Size (mL)	3.000
CCB	Concentration of Titrant (Molarity)	0.1985
Batch #	Titrant volume at end-point in mL	0.003
13269	***Enter Dilution Factor or 1***	1
Test Code		
OH	Concentration of Sample (MOLARITY)	1.72E-04
Matrix	Concentration of Sample in PPM	2.92E+00
Liquid		
Sample #	Detection Limit (PPM)	4.17E+01
BLNK		
Instrument Code		
OH-1		
Analyst		
CE		
Date Analyzed		
3/4/09		CCB
Time	Concentration of Sample (MOLARITY)	1.72E-04
9:50PM	Concentration of Sample in PPM	<41.66666666666667

\* The specific formulae used in the calculation for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

12  
3/5/09



Program version tiamo 1.1 - 36  
2009-03-04 8:25:53 PM UTC-

## Calibration report

### Determination

Method . . . . . pH 7-10 Calibration  
Determination start . . . . . 2009-03-04 20:13:31 UTC-8  
User (full name) . . . . . Cheryl Edwards

### Results

Cal Slope . . . . . 97.90 %  
Temperature . . . . . 21.0 °C



Program version tiamo 1.1-36

User ce

2009-03-04 20:35:46 PM UTC-

## Results report

### Sample data

Sample ID ..... ICV  
 Sample size, mL ..... 0.05  
 Standard Number ..... 62N15A  
 Standard Value ..... 16230

### Determination

Method ..... OH Std  
 Determination start ..... 2009-03-04 20:32:29 UTC-8  
 User (full name) ..... Cheryl Edwards  
 User (short name) ..... ce

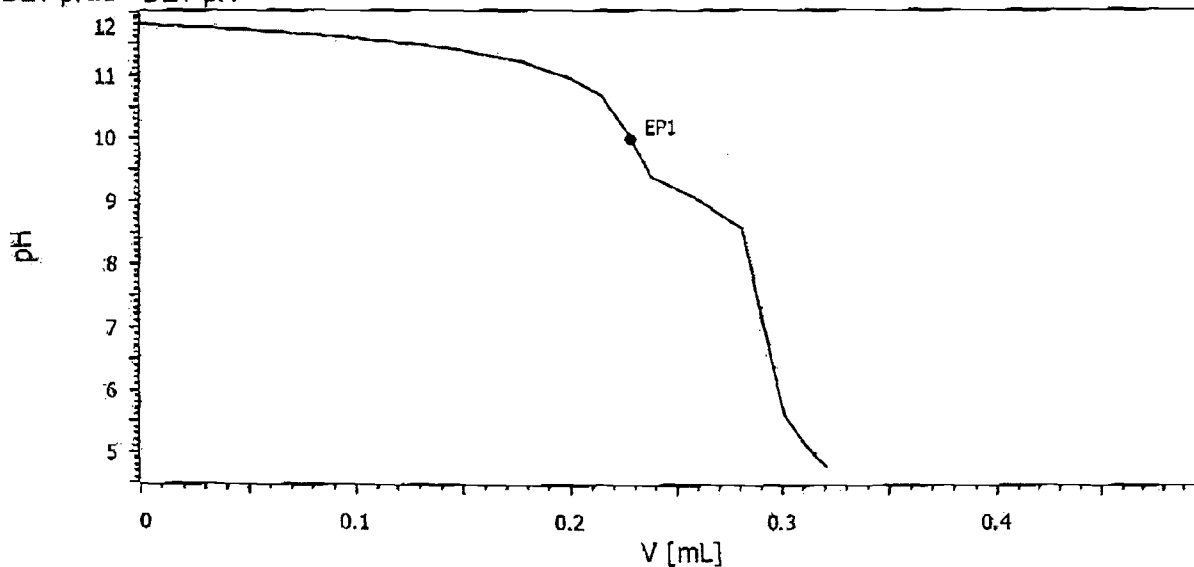
### End points

DET pH DET pH.1  
 EP1 ..... 8.973 pH ..... 0.2283 mL

### Results

OH ..... 15415.50 ppm  
 Molarity of Titrant ..... 0.1985 mol/L  
 Temperature ..... 20.2 °C

DET pH.1 - DET pH





Program version tiamo 1.1 - 36

User ce

2009-03-04 14:48 PM UTC-

## Results report

### Sample data

Sample ID . . . . . CCB  
Sample size, mL . . . . . 3.0

### Determination

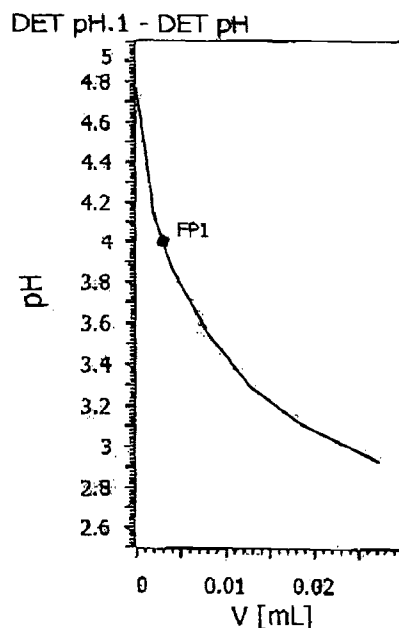
Method . . . . . OH Blank  
Determination start . . . . . 2009-03-04 20:40:22 UTC-8  
User (full name) . . . . . Cheryl Edwards  
User (short name) . . . . . ce

### End points

DET pH DET pH.1  
FP1 . . . . . 4.000 pH . . . . . 0.0030 mL  
FP2 . . . . . invalid pH . . . . . invalid mL  
FP3 . . . . . invalid pH . . . . . invalid mL

### Results

OH . . . . . 20.9 °C  
Molarity of Titrant . . . . .  
Temperature . . . . .





User ce

Program version ti amo 1.1 - 36

2009-03-04 8:56:27 PM UTC-

## Results report

### Sample data

Sample ID ..... S09T004795 1796 504B  
 Sample size, mL ..... 0.05 3-5-09

### Determination

Method ..... OH Sample  
 Determination start ..... 2009-03-04 20:49:40 UTC-8  
 User (full name) ..... Cheryl Edwards  
 User (short name) ..... ce

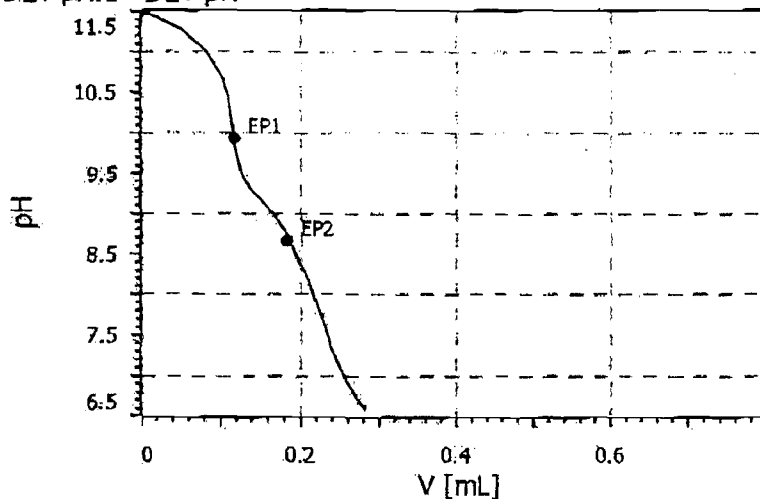
### End points

DET pH DET pH.1  
 EP1 ..... 9.930 pH ..... 0.1178 mL  
 EP2 ..... 8.663 pH ..... 0.1829 mL

### Results

OH ..... 7952.26 ppm  
 Molarity of Titrant ..... 0.1985 mol/L  
 Temperature ..... 20.2 °C  
 Detection Limit ..... 553.40 ppm

DET pH.1 - DET pH





Program version tiamo 1.1 - 36

User ce

2009-03-04 08:21 PM UTC-

## Results report

### Sample data

Sample ID ..... S09T001796-DUP  
Sample size, mL ..... 0.05

1796

SUB

3-5-09

### Determination

Method ..... OH Sample  
Determination start ..... 2009-03-04 21:00:52 UTC-8  
User (full name) ..... Cheryl Edwards  
User (short name) ..... ce

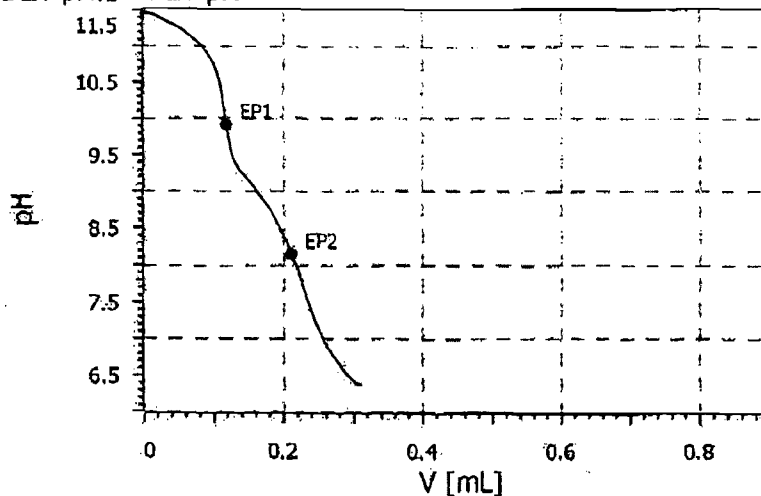
### End points

DET pH DET pH.1  
EP1 ..... 9.914 pH ..... 0.1187 mL  
EP2 ..... 8.148 pH ..... 0.2107 mL

### Results

OH ..... 8017.13 ppm  
Molarity of Titrant ..... 0.1985 mol/L  
Temperature ..... 20.5 °C  
Detection Limit ..... 553.40 ppm

DET pH.1 - DET pH





User ce

2009-03-04 17:26 PM UTC-

## Results report

### Sample data

Sample ID ..... 1796 S09T001795 SPK SUB 3-5-09  
 Sample size, mL ..... 0.05  
 Standard Number ..... 62N15A  
 Standard Value ..... 16230  
 Volume Spk used ..... 0.05

### Determination

Method ..... OH SPK  
 Determination start ..... 2009-03-04 21:12:37 UTC-8  
 User (full name) ..... Cheryl Edwards  
 User (short name) ..... ce

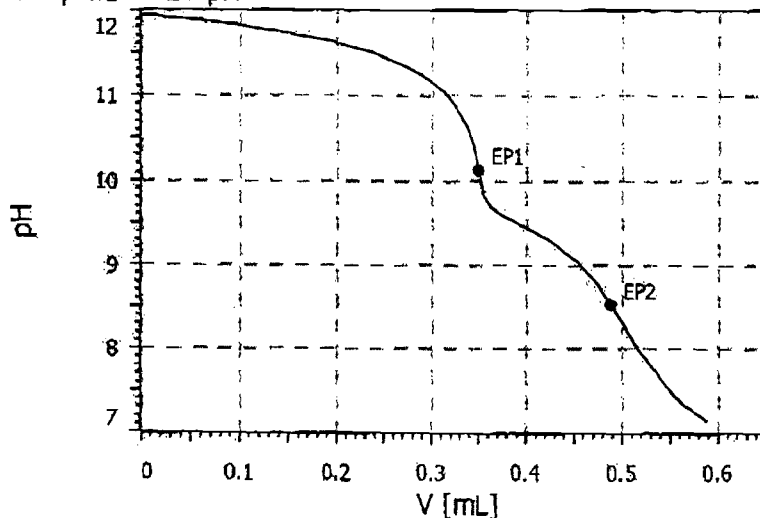
### End points

DET pH DET pH.1  
 EP1 ..... 10.130 pH ..... 0.3492 mL  
 EP2 ..... 8.529 pH ..... 0.4876 mL

### Results

OH ..... 23575.91 ppm  
 Molarity of Titrant ..... 96.26 %  
 Temperature .....  
 Detection Limit ..... 20.3 °C

DET pH.1 - DET pH





Program version tiamo 1.1 - 36

User ce

2009-03-04 9:26:42 PM UTC-

## Results report

### Sample data

Sample ID ..... S09T001772  
Sample size, mL ..... 0.05

1773

SLH13

3-5-09

### Determination

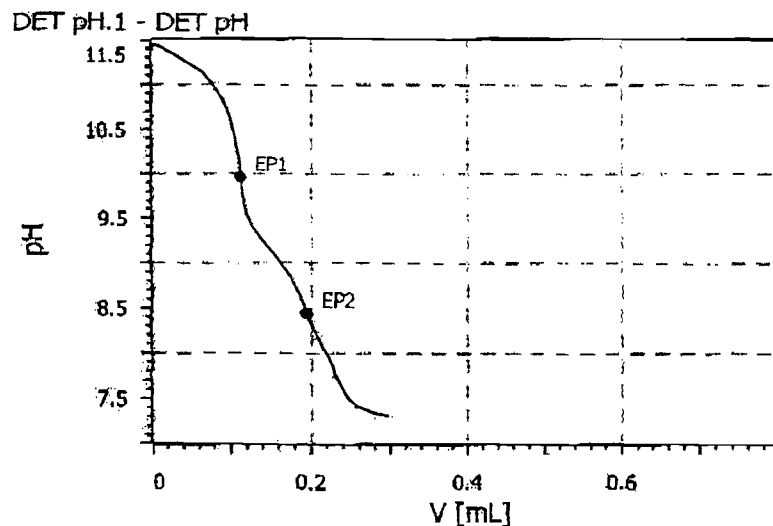
Method ..... OH Sample  
Determination start ..... 2009-03-04 21:23:09 UTC-8  
User (full name) ..... Cheryl Edwards  
User (short name) ..... ce

### End points

DET pH DET pH.1  
EP1 ..... 9.964 pH ..... 0.1120 mL  
EP2 ..... 8.436 pH ..... 0.1956 mL

### Results

OH ..... 7564.31 ppm  
Molarity of Titrant ..... 0.1985 mol/L  
Temperature ..... 20.3 °C  
Detection Limit ..... 553.40 ppm







User ce

Program version tiamo 1.1 - 38

2009-03-04 9:35:54 PM UTC-

## Results report

### Sample data

Sample ID ..... CCV  
 Sample size, mL ..... 0.05  
 Standard Number ..... 62N15A  
 Standard Value ..... 16230

### Determination

Method ..... OH Std  
 Determination start ..... 2009-03-04 21:32:33 UTC-8  
 User (full name) ..... Cheryl Edwards  
 User (short name) ..... ce

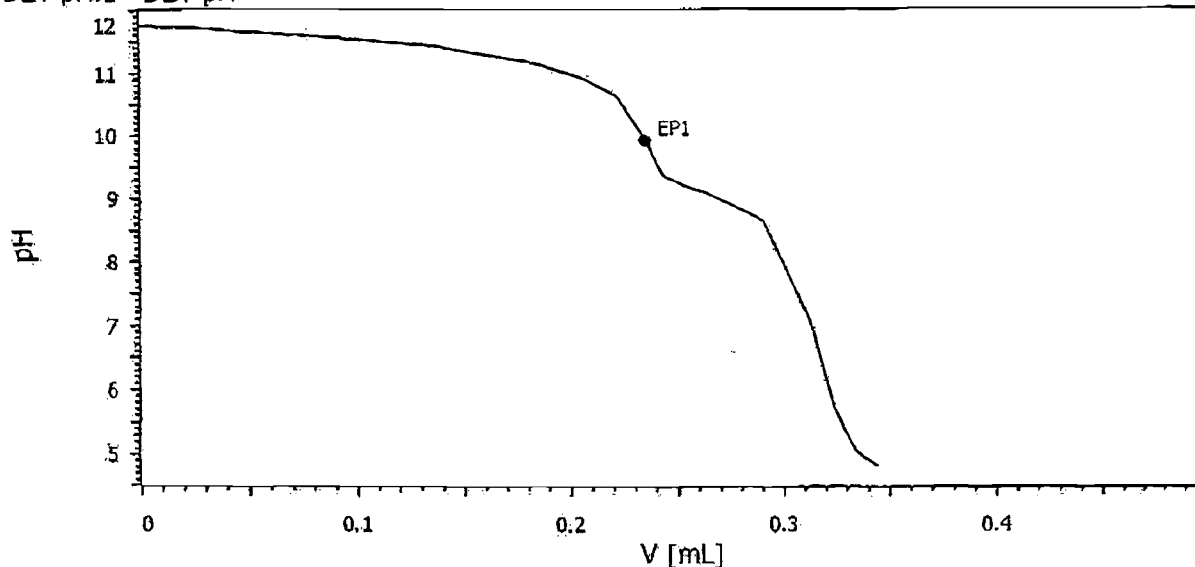
### End points

DET pH DET pH.1  
 EP1 ..... 9.929 pH ..... 0.2349 mL

### Results

OH ..... 15857.06 ppm  
 Molarity of Titrant ..... 0.1985 mol/L  
 Temperature ..... 21.0 °C

DET pH.1 - DET pH





Program version tiamo 1.1 - 36

User ce

2009-03-04 21:38:26 PM UTC-

## Results report

### Sample data

Sample ID . . . . . BLANK  
Sample size, mL . . . . . 3.0

### Determination

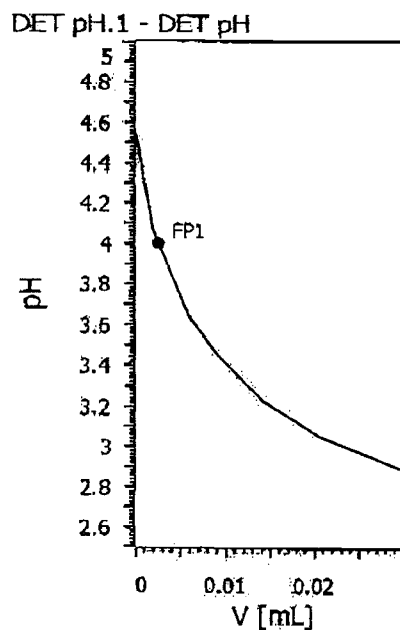
Method . . . . . OH Blank  
Determination start . . . . . 2009-03-04 21:38:11 UTC-8  
User (full name) . . . . . Cheryl Edwards  
User (short name) . . . . . ce

### End points

DET pH DET pH.1  
FP1 . . . . . 4.000 pH . . . . . 0.0026 mL  
FP2 . . . . . invalid pH . . . . . invalid mL  
FP3 . . . . . invalid pH . . . . . invalid mL

### Results

OH . . . . . 21.0 °C  
Molarity of Titrant . . . . .  
Temperature . . . . .



## LABCORE Completed Batch Report for Batch# 00013324

**Analyst:** Purinton, Tony

**Book#:** 62N15A

**Instrument:** Metrohm Titrator

**Method:** OH, LA-211-102 Rev/Mod 1-0

**Specification:** AW106 EVAP3

**Prep Batch:** *✓A AW 03/11/09*

**Batch Comment:** ~~AW~~ 106 Evap for Oh adp

Seq Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
Sample Sequence 1															
1 STD	S0903090069		0	0	Hydroxide	LIQUID	16230	1.5143E+04			2.50E+03	ug/mL	93.304	% Recovery	
Sample Sequence 2															
2 BLNK	S0903090070		0	0	Hydroxide	LIQUID		<4.1700E+01			41.7	ug/mL			
Sample Sequence 3															
3 SAMPLE	S09T001808		0	0	Hydroxide	LIQUID	N/A	7.9488E+03			2.50E+03	ug/mL			
Sample Sequence 4															
4 DUP	S0903090071	S09T001808	0	0	Hydroxide	LIQUID	7.9488E+03	7.8670E+03			2.50E+03	ug/mL	1.0342	% RPD	
Sample Sequence 5															
5 SPK	S0903090072	S09T001808	0	0	Hydroxide	LIQUID	16230	2.4211E+04			2.50E+03	ug/mL	100.2	% Recovery	
Sample Sequence 6															
6 CCV	S0903090075		0	0	Hydroxide	LIQUID	16230	1.5001E+04			2.50E+03	ug/mL	92.43	% Recovery	
Sample Sequence 7															
7 CCB	S0903090076		0	0	Hydroxide	LIQUID		<4.1700E+01			41.7	ug/mL			

### Comments Section:

Data Flagger Status:  
Flagging Completed

**Final Page for Batch# 00013324**

*[Signature]* 3/11/09  
Reviewer Signature Date

2nd Reviewer: *[Signature]* 3/11/09

QA: *[Signature]* 3/17/09  
*[Signature]* 3/17/09

## LABCORE Completed Batch Report for Batch# 00013324

Seq	Sample#	QC Type	Assoc. Sample	Sample Group	Customer Id	Specification
1	S0903090069	STD				
2	S0903090070	BLNK				
3	S09T001808	SAMPLE		20090163	6AW-08-04B	AW106 EVAP3
4	S0903090071	DUP	S09T001808			
5	S0903090072	SPK	S09T001808			
6	S0903090075	CCV				
7	S0903090076	CCB				

3/9/2009 7:18:15PM  
IncompleteBatchShort Version 2.7.22  
batchreports 2.7.25

Page: 1

## LABCORE Data Entry Template for Batch# 00013324

Analyst: Purinton, Tony

Standard ID / Book#: 62N15A

Instrument: Metrohm Titrator

Method: OH, LA-102 211-102 Rev/Mod I-0

Prep Batch:

Batch Comment: AN 106 Evap for Oh adp

S	Type	Sample	R	A	Matrix	Group#	Project
1	STD		0		LIQUID		
	Analytes Requested:	Hydroxide					
2	BLNK		0		LIQUID		
	Analytes Requested:	Hydroxide					
3	SAMPLE	S09T001808	0		LIQUID	20090163	AW106 EVAP3
	Analytes Requested:	Hydroxide					
4	DUP	S09T001808	0		LIQUID		
	Analytes Requested:	Hydroxide					
5	SPK	S09T001808	0		LIQUID		
	Analytes Requested:	Hydroxide					
6	CCV		0		LIQUID		
	Analytes Requested:	Hydroxide					
7	CCB		0		LIQUID		
	Analytes Requested:	Hydroxide					

## Final Page for Batch# 00013324

Jracy Maling  
Analyst Signature

3/09/09  
Date

[Signature]  
Data Entry Signature

3/11/09  
Date

Data Entry Comments:

S = Batch Slot Number, R = Retest Number, A = Aliquot Code.





Program version tiamo 1.1 - 36  
2009-03-09 6:11:14 PM UTC-

## Calibration report

### Determination

Method . . . . . pH 7-10 Calibration  
Determination start . . . . . 2009-03-09 18:08:48 UTC-8  
User (full name) . . . . . Tony Purinton

### Results

Cal Slope . . . . . 98.20 %  
Temperature . . . . . 19.6 °C



User adp

Program version tiemo 1.1 - 36

2009-03-09 19:24 PM UTC-

## Results report

### Sample data

Sample ID . . . . . STD ICV  
Sample size, mL . . . . . 0.05  
Standard Number . . . . . 62N15A  
Standard Value . . . . . 16230

### Determination

Method . . . . . OH Std  
Determination start . . . . . 2009-03-09 18:16:24 UTC-8  
User (full name) . . . . . Tony Purinton  
User (short name) . . . . . adp

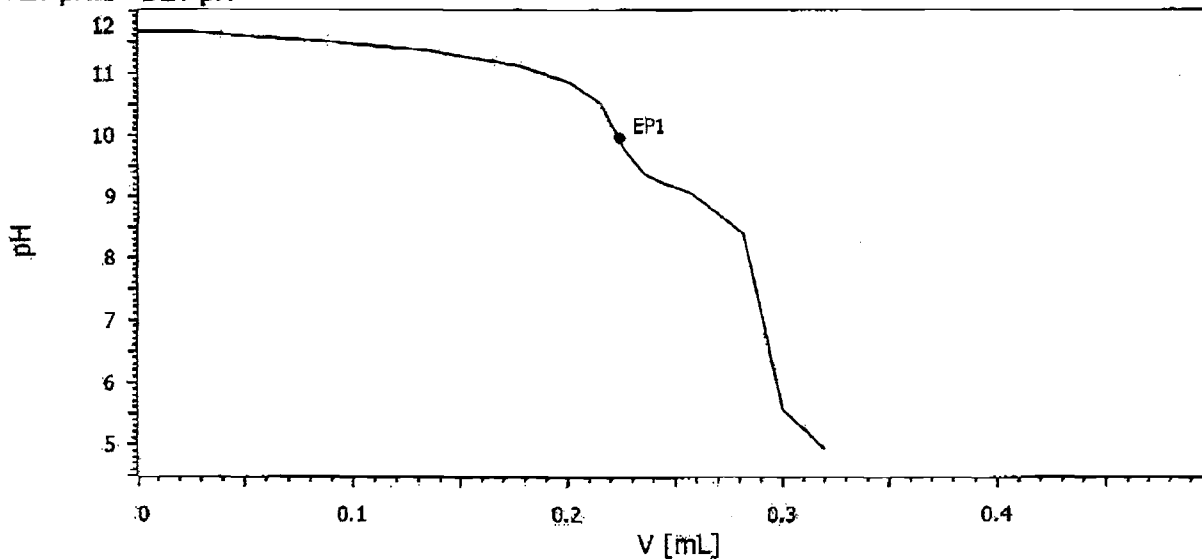
### End points

DET pH DET pH.1  
EP1 . . . . . 9.861 pH . . . . . 0.2243 mL

### Results

OH . . . . . 15143.25 ppm  
Molarity of Titrant . . . . . 0.1985 mol/L  
Temperature . . . . . 20.1 °C

DET pH.1 - DET pH







Program version tiamo 1.1 - 36

User adp

2009-03-09 22:38 PM UTC-

## Results report

### Sample data

Sample ID ..... ICB  
Sample size, mL ..... 3

### Determination

Method ..... OH Blank  
Determination start ..... 2009-03-09 18:21:29 UTC-8  
User (full name) ..... Tony Purinton  
User (short name) ..... adp

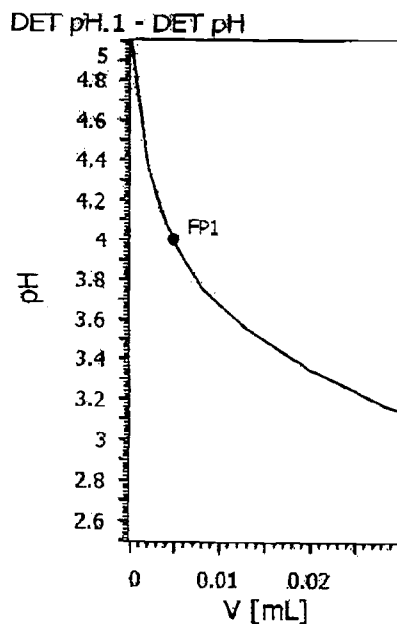
### End points

#### DET pH DET pH.1

FP1 ..... 4.000 pH ..... 0.0049 mL  
FP2 ..... invalid pH ..... invalid mL  
FP3 ..... invalid pH ..... invalid mL

### Results

OH ..... 19.6 °C  
Molarity of Titrant .....  
Temperature .....





Program version tiamo 1.1 - 36

User adp

2009-03-09 18:30:16 PM UTC-

## Results report

### Sample data

Sample ID ..... S09T001808  
Sample size, mL ..... 0.05

### Determination

Method ..... OH Sample  
Determination start ..... 2009-03-09 18:25:33 UTC-8  
User (full name) ..... Tony Purinton  
User (short name) ..... adp

### End points

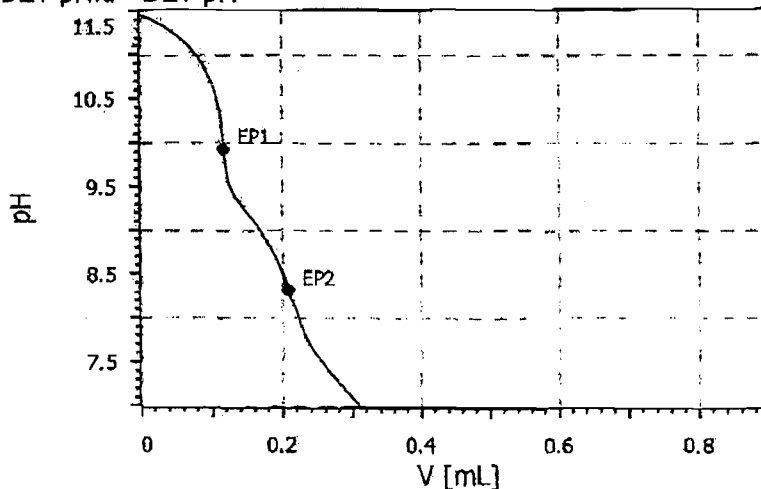
#### DET pH

DET pH.1  
EP1 ..... 9.927 pH ..... 0.1177 mL  
EP2 ..... 8.316 pH ..... 0.2082 mL

### Results

OH ..... 7948.78 ppm  
Molarity of Titrant ..... 0.1985 mol/L  
Temperature ..... 20.0 °C  
Detection Limit ..... 553.40 ppm

DET pH.1 - DET pH





2009-03-09 6:37:44 PM UTC-

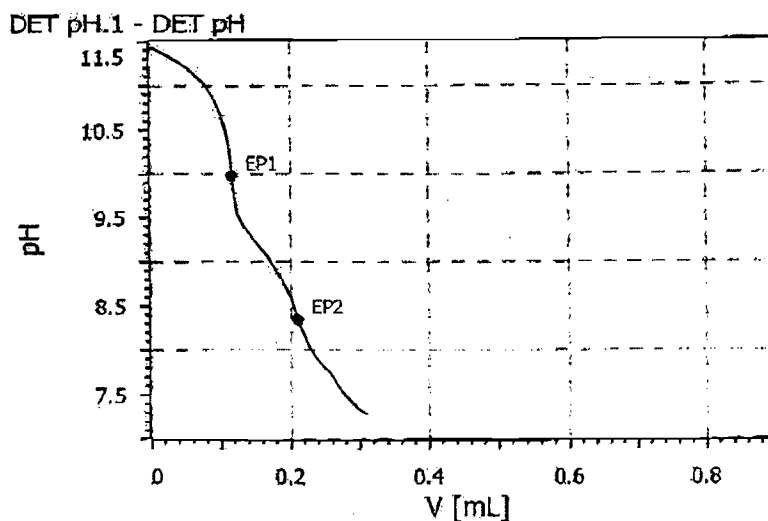
### Sample data

Sample ID ..... S09T001808 DUP  
Sample size, mL ..... 0.05

```
Method . . . . . OH Sample
Determination start . . . . . 2009-03-09 18:34:10 UTC-8
User (full name) . . . . . Tony Purinton
User (short name) . . . . . adp
```

DET pH	DET pH.1			
EP1	9.979	pH	0.1165	mL
EP2	8.346	pH	0.2104	mL

OH . . . . .	7866.95	ppm
Molarity of Titrant . . . . .	0.1985	mol/L
Temperature . . . . .	19.8	°C
Detection Limit . . . . .	553.40	ppm





User adp

Program version tiamo 1.1 - 36

2009-03-09 18:47:19 PM UTC-

## Results report

### Sample data

Sample ID ..... S09T001808 SPK  
 Sample size, mL ..... 0.05  
 Standard Number ..... 62N15A  
 Standard Value ..... 16230  
 Volume Spk used ..... 0.05

### Determination

Method ..... OH SPK  
 Determination start ..... 2009-03-09 18:43:12 UTC-8  
 User (full name) ..... Tony Purinton  
 User (short name) ..... adp

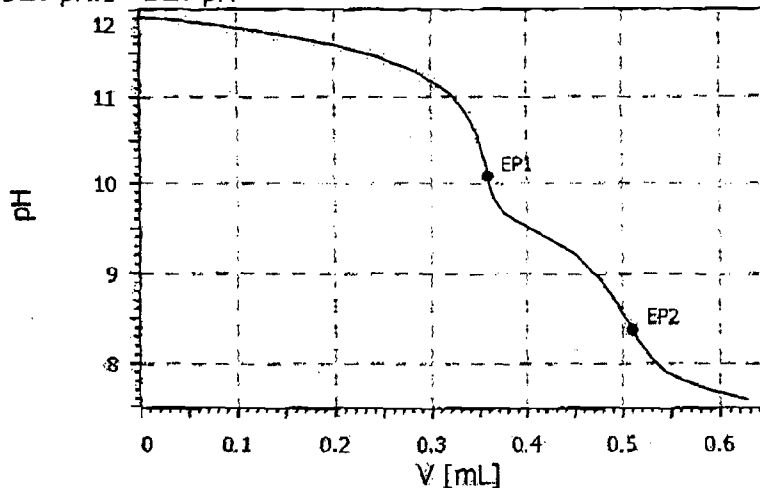
### End points

DET pH DET pH.1  
 EP1 ..... 10.089 pH ..... 0.3586 mL  
 EP2 ..... 8.378 pH ..... 0.5104 mL

### Results

OH ..... 24211.03 ppm  
 Molarity of Titrant ..... 100.20 %  
 Temperature .....  
 Detection Limit ..... 18.4 °C

DET pH.1 - DET pH





Program version tiamo 1.1 - 36

User adp

2009-03-09 18:55:48 PM UTC

## Results report

### Sample data

Sample ID ..... **CCV**  
 Sample size, mL ..... 0.05  
 Standard Number ..... 62N15A  
 Standard Value ..... 16230

### Determination

Method ..... OH Std  
 Determination start ..... 2009-03-09 18:53:21 UTC-8  
 User (full name) ..... Tony Purinton  
 User (short name) ..... adp

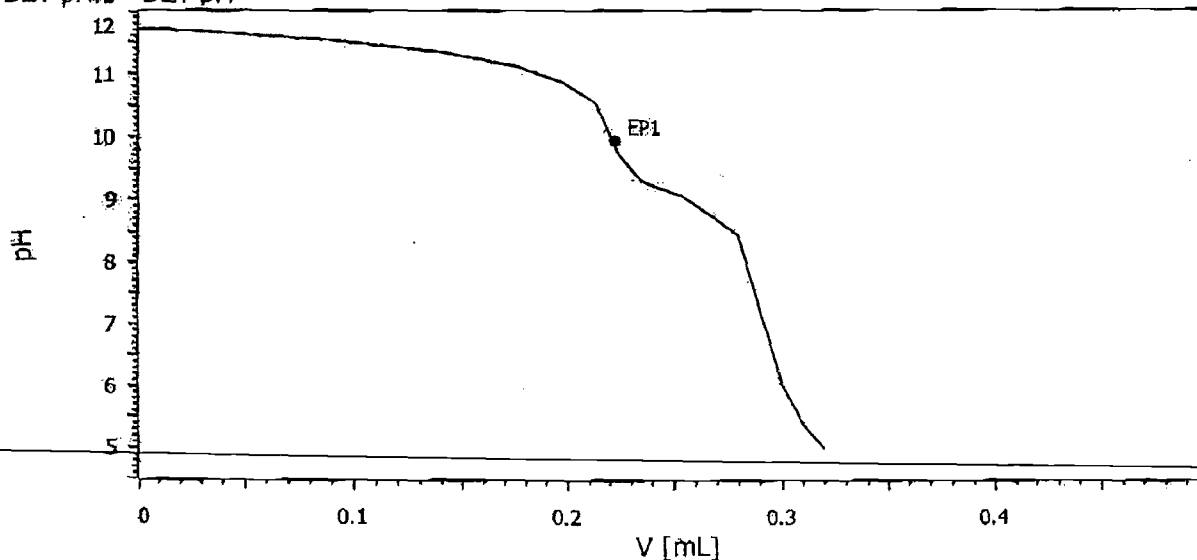
### End points

DET pH DET pH.1  
 EP1 ..... 9.957 pH ..... 0.2222 mL

### Results

OH ..... 15001.33 ppm  
 Molarity of Titrant ..... 0.1985 mol/L  
 Temperature ..... 20.2 °C

DET pH.1 - DET pH





Program version tiampo 1.1 - 36

User adp

2009-03-09 18:59:20 PM UTC-

## Results report

### Sample data

Sample ID ..... CCB  
Sample size, mL ..... 3

### Determination

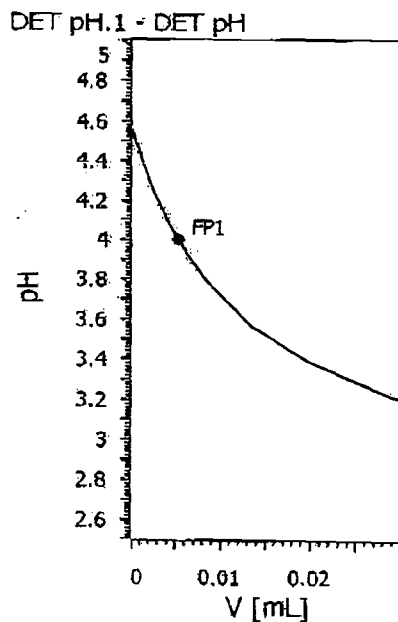
Method ..... OH Blank  
Determination start ..... 2009-03-09 18:58:11 UTC-8  
User (full name) ..... Tony Purinton  
User (short name) ..... adp

### End points

DET pH DET pH.1  
FP1 ..... 4.000 pH ..... 0.0054 mL  
FP2 ..... invalid pH ..... invalid mL  
FP3 ..... invalid pH ..... invalid mL

### Results

OH ..... 20.0 °C  
Molarity of Titrant .....  
Temperature .....



## LABCORE Completed Batch Report for Batch# 00013445

Analyst: Purinton, Tony

Book#: 12N14B

Instrument: DSC5/TGA7 Analyzer

Method: DSC-TA, LA-514-115 Rev/Mod E-0

Specification: AW106 EVAP3

Prep Batch:

Batch Comment: DSC for AW106 EVAP3 adp

Seq Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
Sample Sequence 1															
1 LCS-INST	S0903190006		0	0	DSC Exotherm	SOLID	28.45	28.2				Joules/g	99.121	% Recovery	
Sample Sequence 2															
2 LCS-INST	S0903190007		0	0	DSC Exotherm	SOLID	28.45	27.44				Joules/g	96.45	% Recovery	
Sample Sequence 3															
3 SAMPLE	S09T001795		0	0	DSC Exotherm	LIQUID	N/A	0				Joules/g			
Sample Sequence 4															
4 DUP	S0903190008	S09T001795	0	0	DSC Exotherm	LIQUID	0	0				Joules/g	0	% RPD	

### Comments Section:

Data Flagger Status:  
Flagging Completed

Final Page for Batch# 00013445

  
Reviewer Signature

3/19/09  
Date

2nd reviewer: 

3/19/09

### LABCORE Completed Batch Report for Batch# 00013445

Seq	Sample#	QC Type	Assoc. Sample	Sample Group	Customer Id	Specification
1	S0903190006	LCS-INST				
2	S0903190007	LCS-INST				
3	S09T001795	SAMPLE		20090162	6AW-08-03B	AW106 EVAP3
4	S0903190008	DUP	S09T001795			

200

RPP-RPT-40709 Rev. 1



## LABCORE Data Entry Template for Batch# 00013445

Analyst: Purinton, Tony

Standard ID / Book#: 12N14B

Instrument: DSC5/TGA7 Analyzer

Method: DSC-TA, LA-514-115 Rev/Mod E-0

Prep Batch:

Batch Comment: DSC for AW106 EVAP3 adp

S	Type	Sample	R	A	Matrix	Group#	Project
1	LCS-INST		0		SOLID		
	Analytes Requested:	DSC Exotherm					
2	LCS-INST		0		SOLID		
	Analytes Requested:	DSC Exotherm					
3	SAMPLE	S09T001795	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	DSC Exotherm					
4	DUP	S09T001795	0		LIQUID		
	Analytes Requested:	DSC Exotherm					

Final Page for Batch# 00013445

Analyst Signature

Date

Data Entry Signature

Date

Data Entry Comments:

S = Batch Slot Number, R = Retest Number, A = Aliquot Code.

Sample: INDIUM  
Size: 12.4600 mg  
Method: Standard  
Comment: 12N14B

DSC

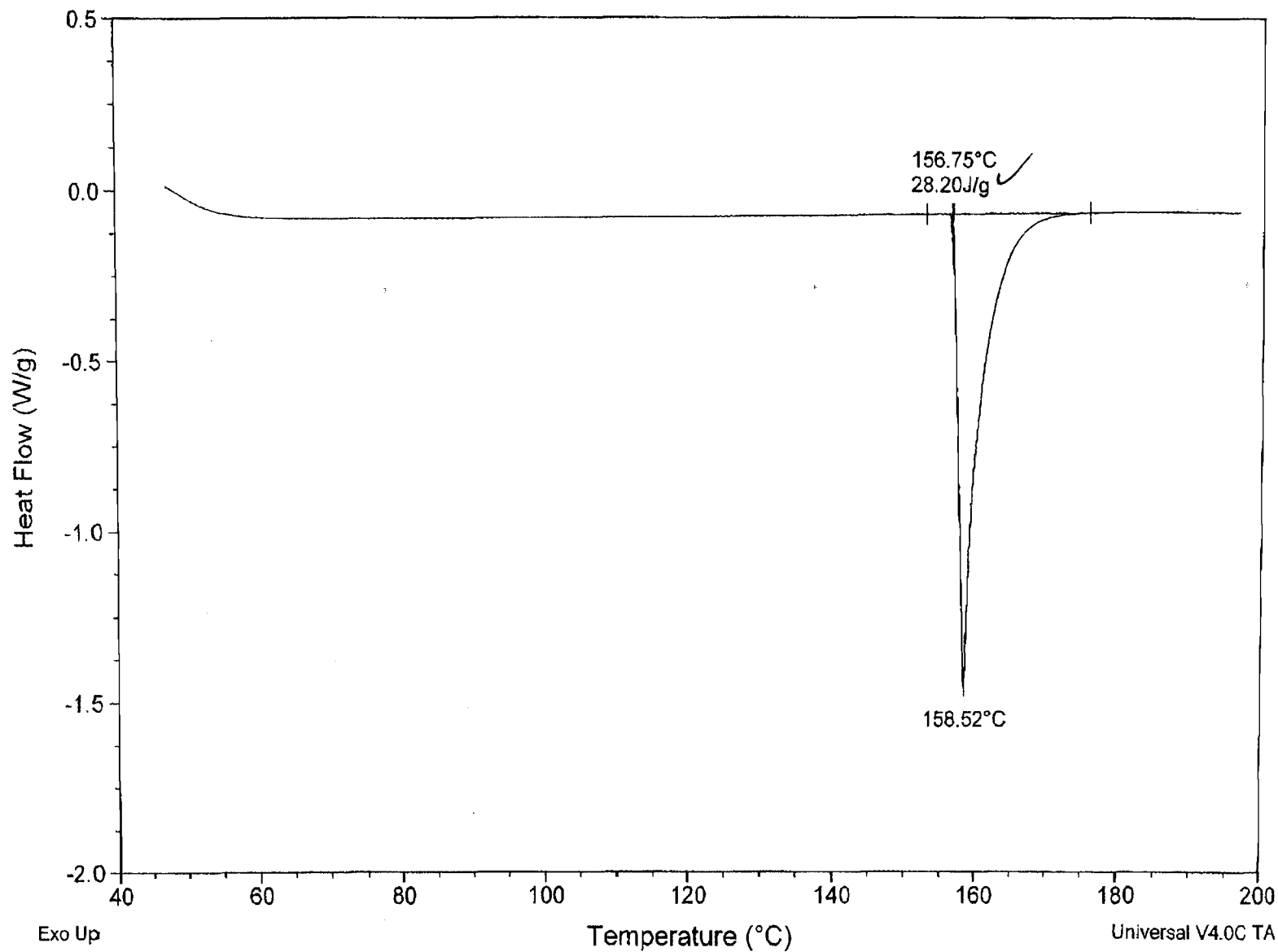
File: C:\TA\Data\DSC-5\DSC-5 2008\IN090317.B03  
Operator: ADP  
Run Date: 17-Mar-2009 12:12  
Instrument: 2920 DSC V2.6A

Fax sent by : 589 376 6783

RPP-RPT-40709 Rev. 1  
SAMPLE CUSTODIAN ZB1

03-17-09 14:48

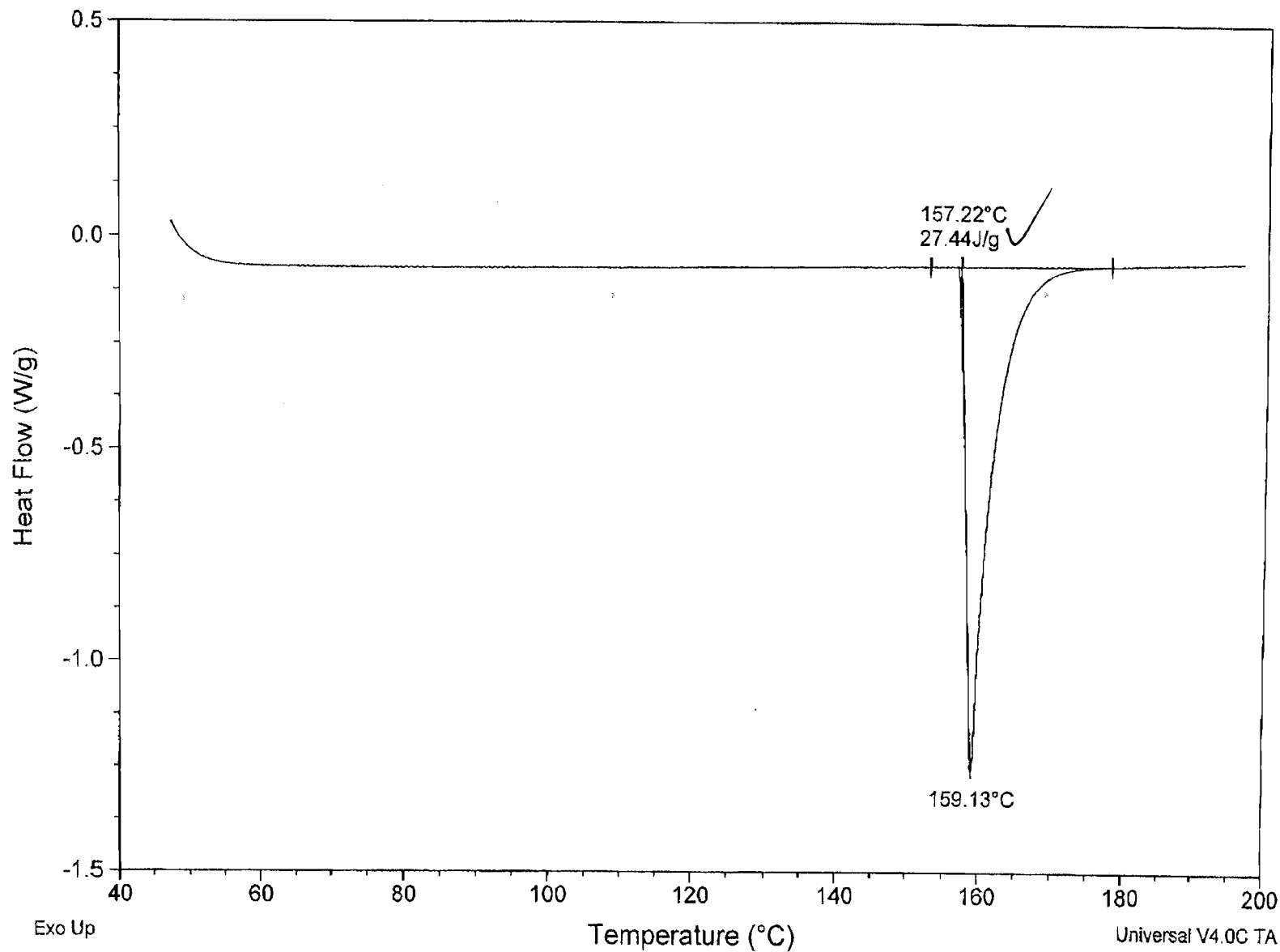
Pg: 11/12



Sample: INDIUM  
Size: 12.2900 mg  
Method: Standard  
Comment: 12N14B

# DSC

File: C:\TA\Data\DSC-5\DSC-5 2008\IN090317.A03  
Operator: ADP  
Run Date: 17-Mar-2009 12:12  
Instrument: 2920 DSC V2.6A



Fax sent by : 509 376 6783

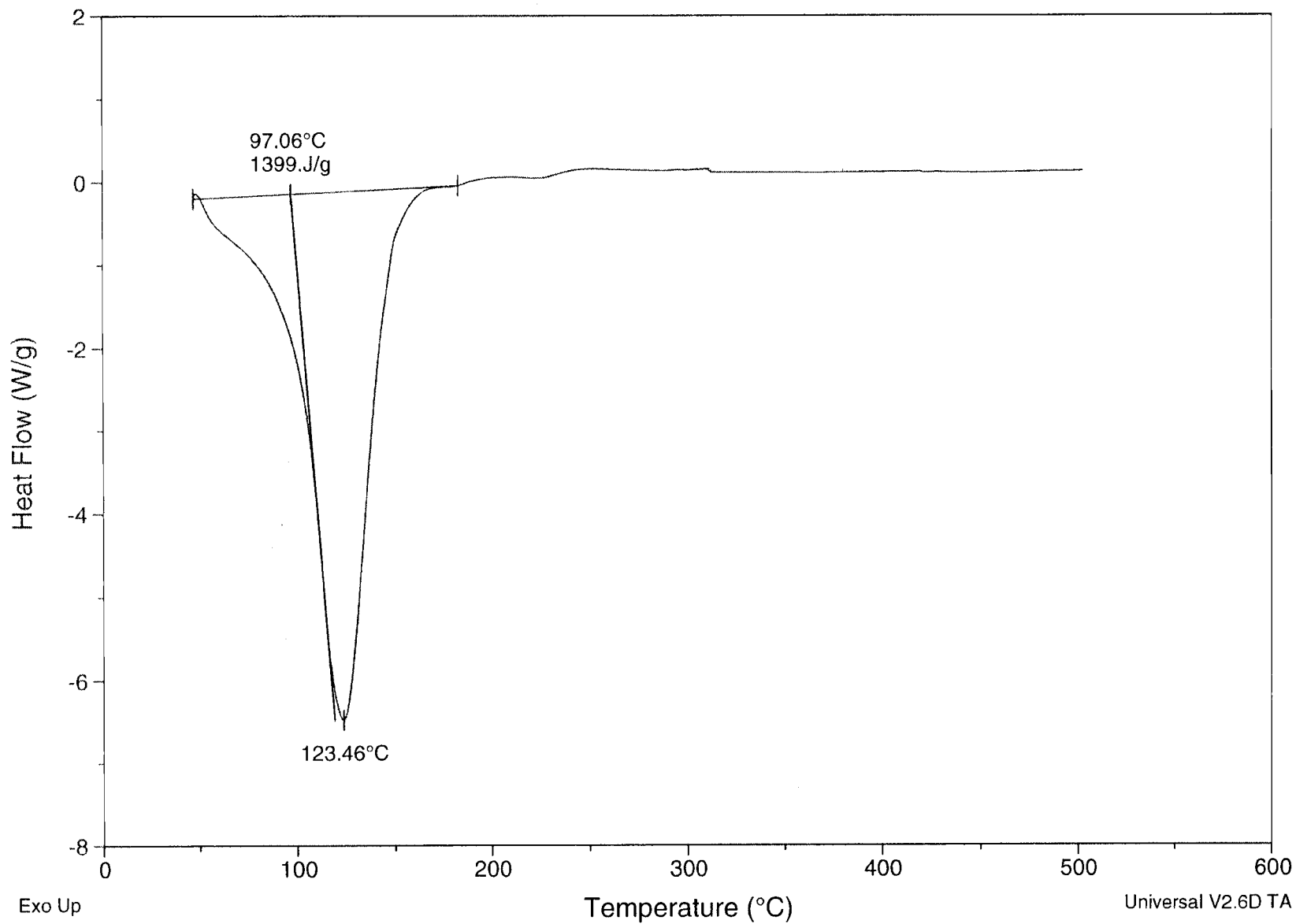
RPP-RPT-40709 Rev. 1  
SAMPLE CUSTODIAN ZBI

03-17-09 14:48 Pg: 12/12

Sample: S09T001795  
Size: 13.1900 mg  
Method: Sample  
Comment: SAM

# DSC

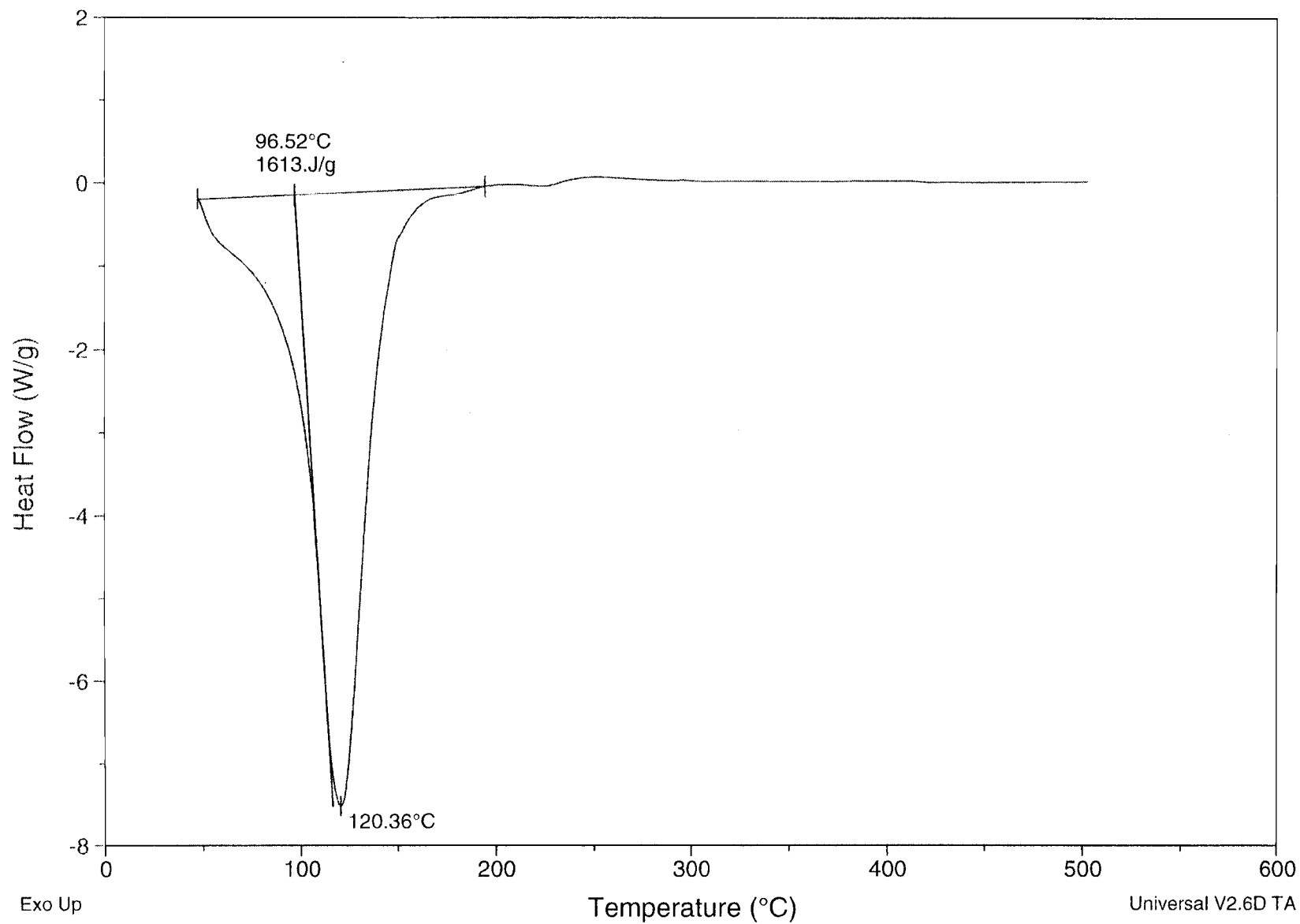
File: C:\...\SAM090317.A01  
Operator: ADP  
Run Date: 17-Mar-09 12:58



Sample: S09T001795 D  
Size: 11.1300 mg  
Method: Sample  
Comment: DUP

# DSC

File: C:\...\SAM090317.B01  
Operator: ADP  
Run Date: 17-Mar-09 12:58



## LABCORE Completed Batch Report for Batch# 00013448

**Analyst:** Purinton, Tony

**Book#:** 12N14B

**Instrument:** DSC4/TGA6 Analyzer

**Method:** DSC-TA, LA-514-115 Rev/Mod E-0

**Specification:** AW106 EVAP3

**Prep Batch:**

**Batch Comment:** AW106 EVAP3 for DSC adp

Seq Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DI/RI/UL)	Unit	Yield	Yield Unit	Flags
Sample Sequence 1															
1 LCS-INST	S0903190009		0	0	DSC Exotherm	SOLID	28.45	24.31				Joules/g	85.448	% Recovery	
Sample Sequence 2															
2 LCS-INST	S0903190010		0	0	DSC Exotherm	SOLID	28.45	28.25				Joules/g	99.297	% Recovery	
Sample Sequence 3															
3 SAMPLE	S09T001773		0	0	DSC Exotherm	LIQUID	N/A	6.55				Joules/g			
Sample Sequence 4															
4 DUP	S0903190011	S09T001773	0	0	DSC Exotherm	LIQUID	6.55	9.403				Joules/g	35.768	% RPD	
Sample Sequence 5															
5 SAMPLE	S09T001783		0	0	DSC Exotherm	LIQUID	N/A	0				Joules/g			
Sample Sequence 6															
6 SAMPLE	S09T001807		0	0	DSC Exotherm	LIQUID	N/A	0				Joules/g			

**Comments Section:** % RPD > control limit for sample S09T001773 and Dup. results. Repeat analysis might not guarantee a better result.

Data Flagger Status:  
Flagging Completed

**Final Page for Batch# 00013448**

*[Signature]*  
Reviewer Signature

3/19/09  
Date

2nd reviewer: *[Signature]*

### LABCORE Completed Batch Report for Batch# 00013448

Seq	Sample#	QC Type	Assoc. Sample	Sample Group	Customer Id	Specification
1	S0903190009	LCS-INST				
2	S0903190010	LCS-INST				
3	S09T001773	SAMPLE		20090162	6AW-08-01	AW106 EVAP3
4	S0903190011	DUP	S09T001773			
5	S09T001783	SAMPLE		20090162	6AW-08-02B	AW106 EVAP3
6	S09T001807	SAMPLE		20090163	6AW-08-04B	AW106 EVAP3

Units shown for QC (BLK/BKG) may not reflect the actual units.

## LABCORE Data Entry Template for Batch# 00013448

Analyst: Purinton, Tony

Standard ID / Book#: 12N14B

Instrument: DSC4/TGA6 Analyzer

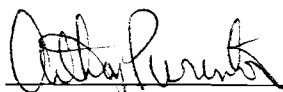
Method: DSC-TA, LA-514-115 Rev/Mod E-0

Prep Batch:


Batch Comment: AW106 EVAP3 for DSC adp

S	Type	Sample	R	A	Matrix	Group#	Project
1	LCS-INST		0		SOLID		
	Analytes Requested:	DSC Exotherm					
2	LCS-INST		0		SOLID		
	Analytes Requested:	DSC Exotherm					
3	SAMPLE	S09T001773	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	DSC Exotherm					
4	DUP	S09T001773	0		LIQUID		
	Analytes Requested:	DSC Exotherm					
5	SAMPLE	S09T001783	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	DSC Exotherm					
6	SAMPLE	S09T001807	0		LIQUID	20090163	AW106 EVAP3
	Analytes Requested:	DSC Exotherm					

Final Page for Batch# 00013448

  
Analyst Signature

3/17/09  
Date

 3/19/09  
Data Entry Signature Date

Data Entry Comments:

S = Batch Slot Number, R = Retest Number, A = Aliquot Code.



Sample: INDIUM  
Size: 12.4600 mg  
Method: Standard  
Comment: 12N14B

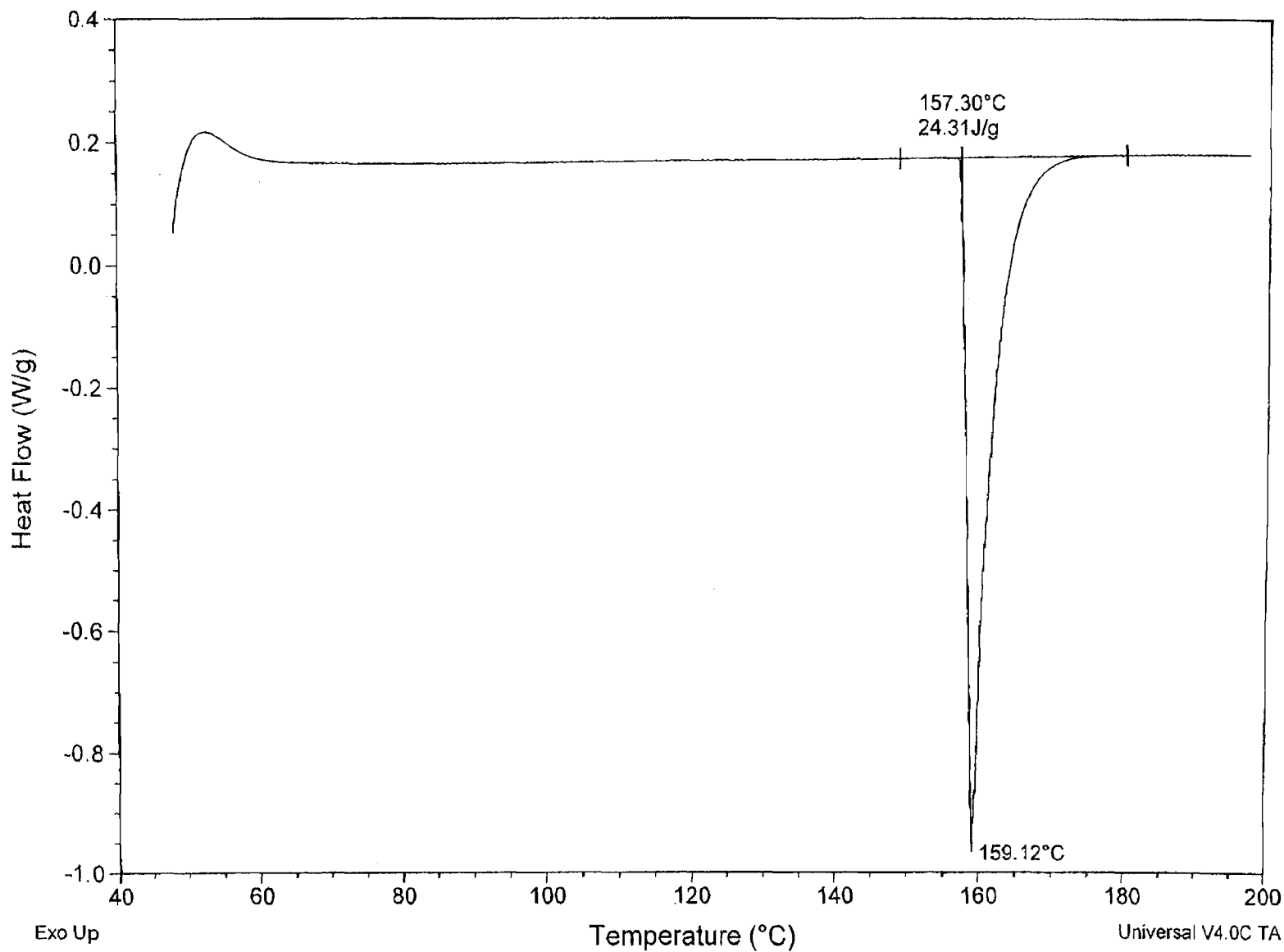
# DSC

File: C:\TA\Data\DSC-4\DSC-4 2008\IN090317.A03  
Operator: ADP  
Run Date: 17-Mar-2009 11:18  
Instrument: 2920 DSC V2.6A

Fax sent by : 509 376 6783

RPP-RPT-40709 Rev. 1  
SAMPLE CUSTODIAN ZB1

03-17-09 14:47 Pg: 4/12

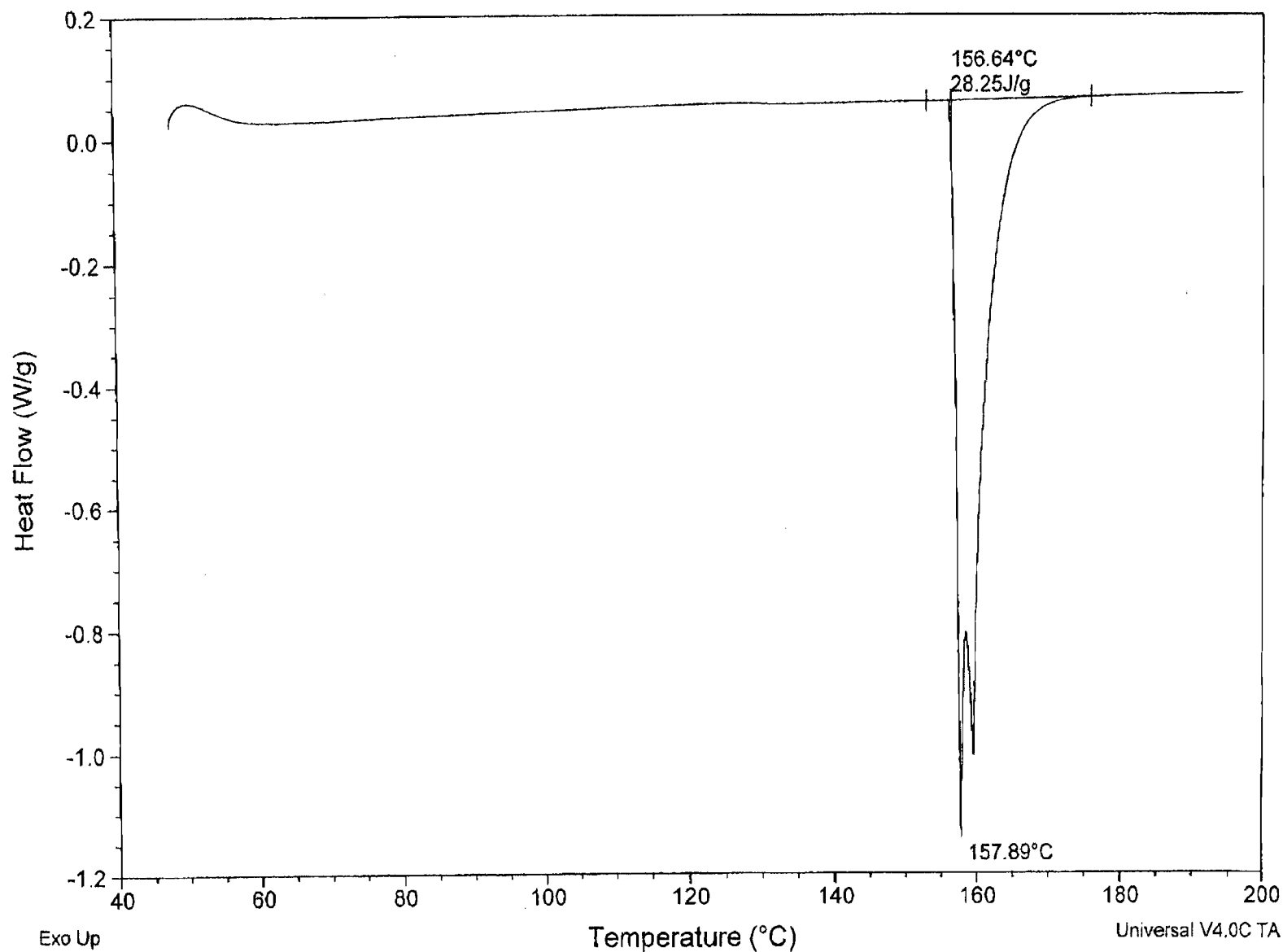


Universal V4.0C TA Instruments

Sample: INDIUM  
Size: 12.4500 mg  
Method: Standard  
Comment: 12N14B

# DSC

File: C:\TA\Data\DSC-4\IN090317.B03  
Operator: ADP  
Run Date: 17-Mar-2009 11:18  
Instrument: 2920 DSC V2.6A



Fax sent by : 509 376 6783

RPP-RPT-40709 Rev. 1  
SAMPLE CUSTODIAN ZB1

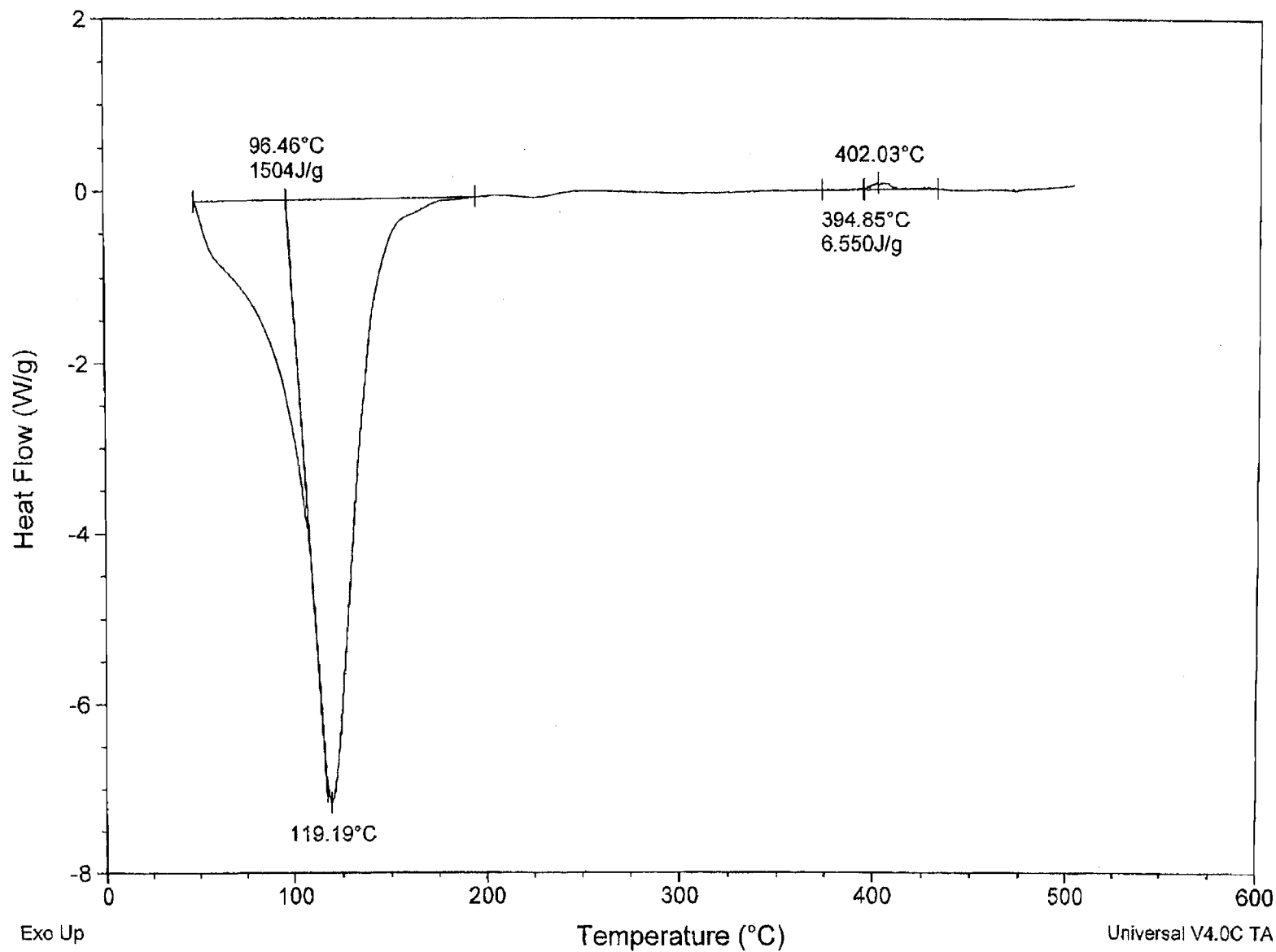
03-17-09 14:48 Pg: 5/12

Universal V4.0C TA Instruments

Sample: S09T001773  
Size: 9.8000 mg  
Method: Sample  
Comment: SAM

# DSC

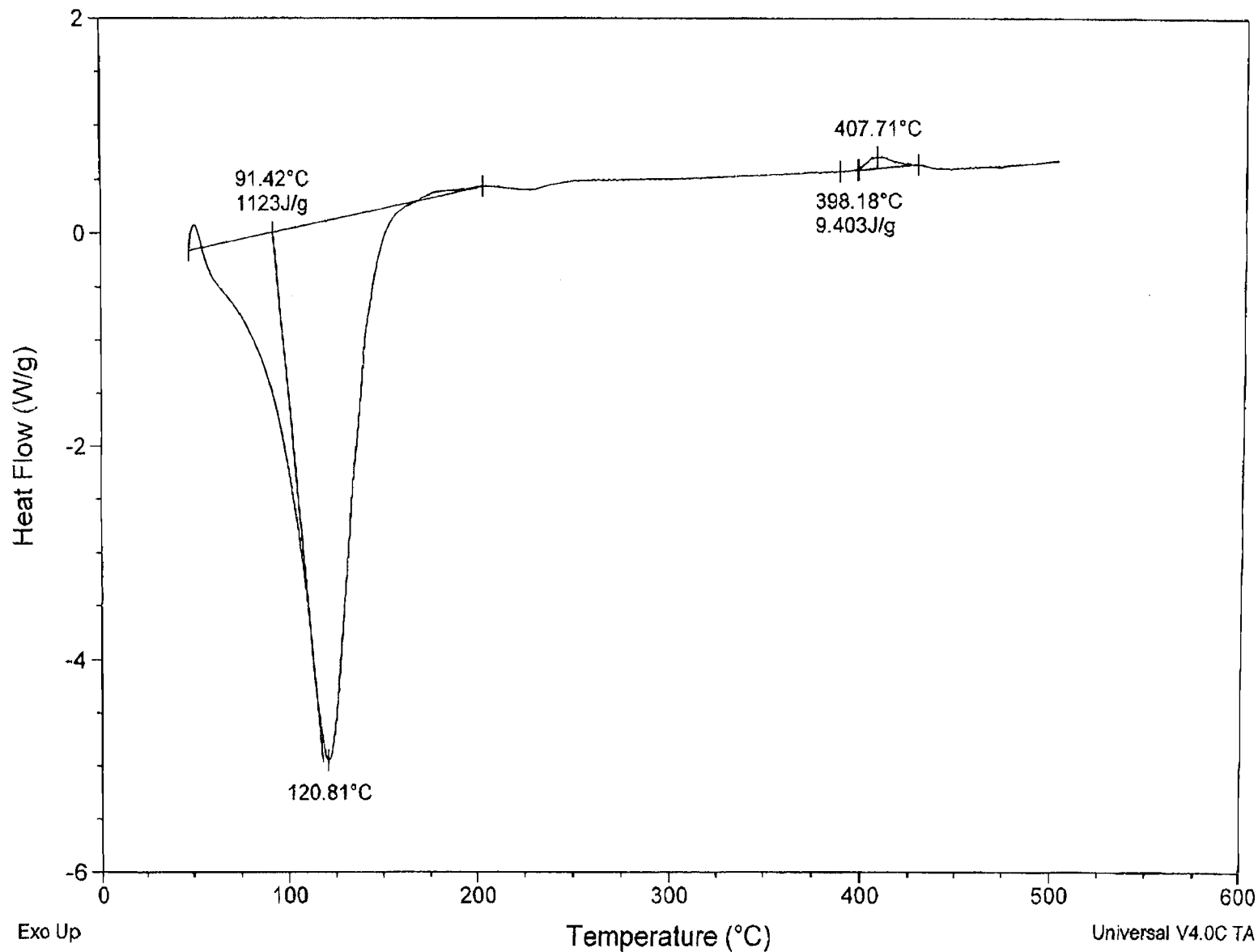
File: C:\...\DSC-4\DSC-4 2008\SAM090317.A01  
Operator: ADP  
Run Date: 17-Mar-2009 11:55  
Instrument: 2920 DSC V2.6A



Sample: S09T001773D  
Size: 9.1500 mg  
Method: Sample  
Comment: DUP

# DSC

File: C:\DSC-4\DSC-4 2008\SAM090317.B01  
Operator: ADP  
Run Date: 17-Mar-2009 11:55  
Instrument: 2920 DSC V2.6A



Fax sent by : 509 376 6783

RPP-RPT-40709 Rev. 1  
SAMPLE CUSTODIAN 2B1

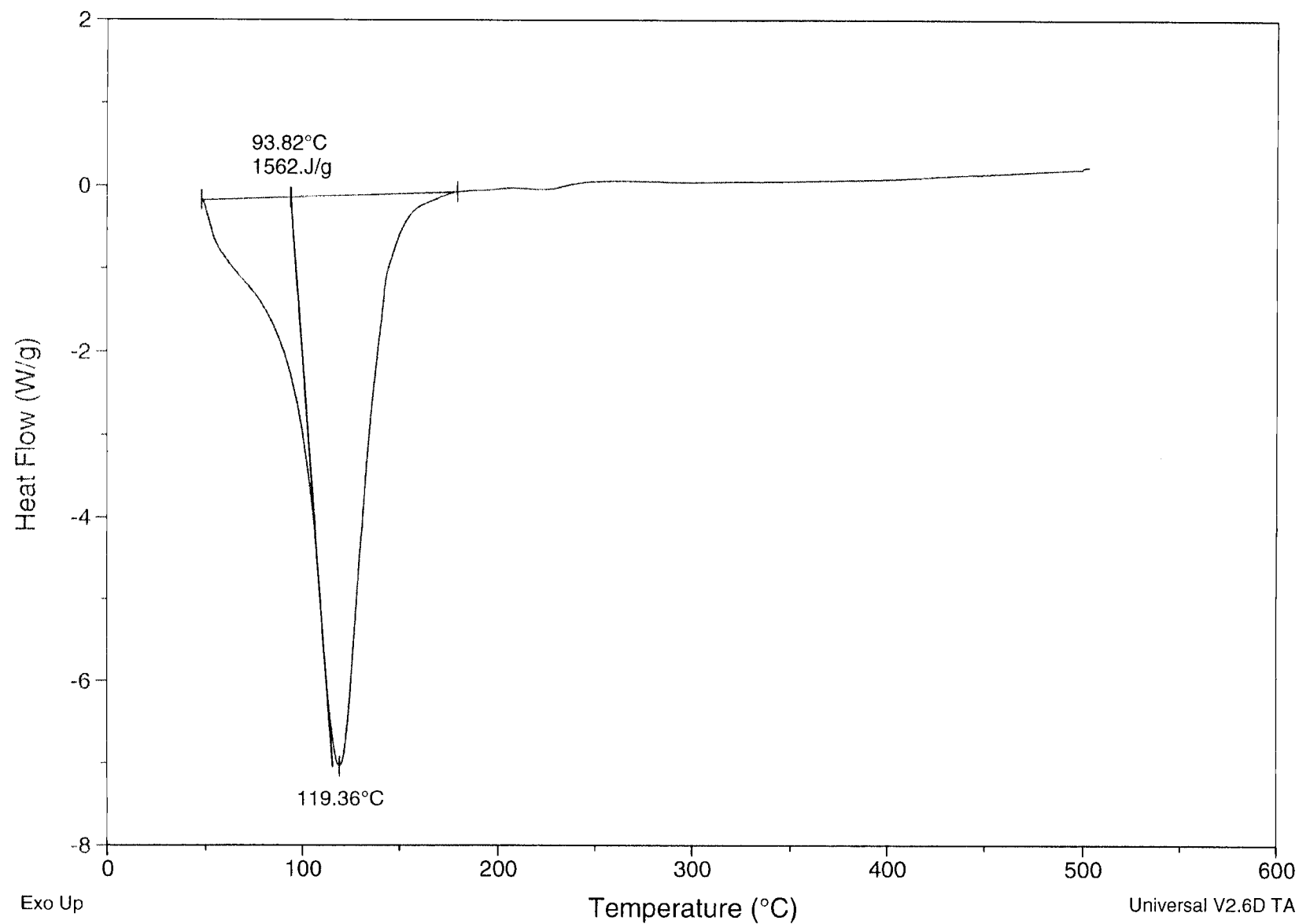
03-17-09 14:47 Pg: 3/12

Universal V4.0C TA Instruments

Sample: S09T001783 SAM  
Size: 10.8800 mg  
Method: Sample  
Comment: SAM

# DSC

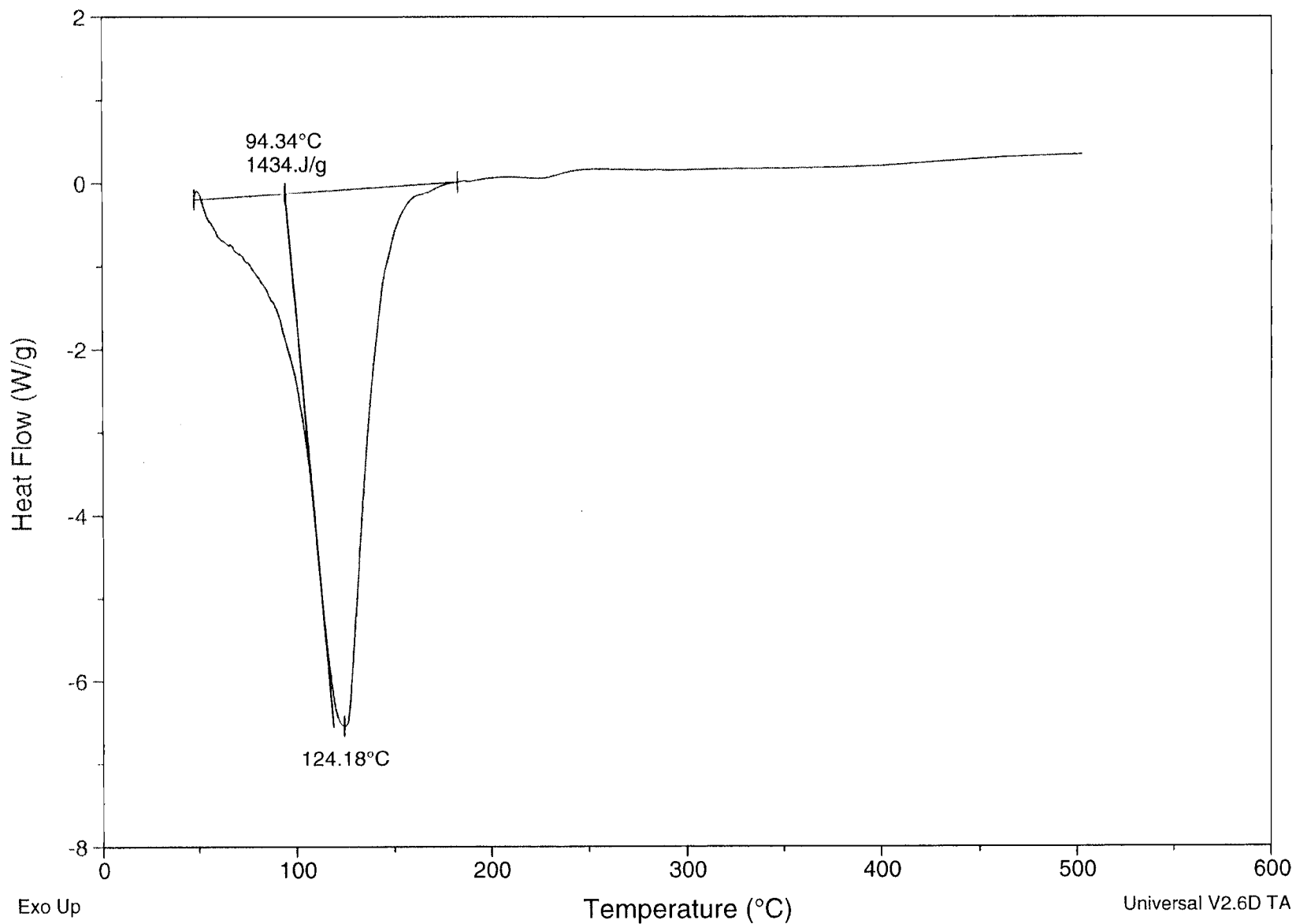
File: C:\...\SAM090317.A02  
Operator: ADP  
Run Date: 17-Mar-09 13:27



Sample: S09T001807 SAM  
Size: 11.1900 mg  
Method: Sample  
Comment: SAM

# DSC

File: C:\...\SAM090317.B02  
Operator: ADP  
Run Date: 17-Mar-09 13:27



## LABCORE Completed Batch Report for Batch# 00013452

Analyst: Purinton, Tony

Book#: 23N26A

Instrument: DSC4/TGA6 Analyzer

Method: TGA-TA, LA-514-115 Rev/Mod E-0

Specification: AW106 EVAP3

Prep Batch:

Batch Comment: AW106 EVAP3 for TGA adp

Seq Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
Sample Sequence 1															
1 LCS-INST	S0903190026		0	0	%WATER	LIQUID	59.64	58.84			0.01	%	98.659	% Recovery	
Sample Sequence 2															
2 SAMPLE	S09T001773		0	0	%WATER	LIQUID	N/A	70.13			0.01	%			
Sample Sequence 3															
3 DUP	S0903190027	S09T001773	0	0	%WATER	LIQUID	70.13	69.32			0.01	%	1.1617	% RPD	
Sample Sequence 4															
4 SAMPLE	S09T001807		0	0	%WATER	LIQUID	N/A	68.92			0.01	%			

### Comments Section:

Data Flagger Status:  
Flagging Completed

Final Page for Batch# 00013452

  
Reviewer Signature

3/19/09  
Date

2nd reviewer: 

3/19/09

### LABCORE Completed Batch Report for Batch# 00013452

Seq	Sample#	QC Type	Assoc. Sample	Sample Group	Customer Id	Specification
1	S0903190026	LCS-INST				
2	S09T001773	SAMPLE		20090162	6AW-08-01	AW106 EVAP3
3	S0903190027	DUP	S09T001773			
4	S09T001807	SAMPLE		20090163	6AW-08-04B	AW106 EVAP3



3/19/2009 9:03:16AM  
IncompleteBatchShort Version 2.7.22  
batchreports 2.7.25

Page: 1

## LABCORE Data Entry Template for Batch# 00013452

Analyst: Purinton, Tony

Standard ID / Book#: 23N26A

Instrument: DSC4/TGA6 Analyzer

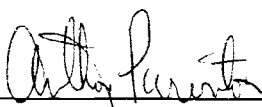
Method: TGA-TA, LA-514-115 Rev/Mod E-6

Prep Batch:

Batch Comment: AW106 EVAP3 for TGA adp

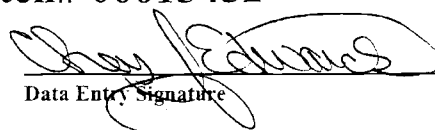
S	Type	Sample	R	A	Matrix	Group#	Project
1	LCS-INST		0		LIQUID		
	Analytes Requested:	%WATER					
2	SAMPLE	S09T001773	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	%WATER					
3	DUP	S09T001773	0		LIQUID		
	Analytes Requested:	%WATER					
4	SAMPLE	S09T001807	0		LIQUID	20090163	AW106 EVAP3
	Analytes Requested:	%WATER					

## Final Page for Batch# 00013452

  
\_\_\_\_\_  
Analyst Signature

3/16/09

Date

  
\_\_\_\_\_  
Data Entry Signature

3/19/09

Date

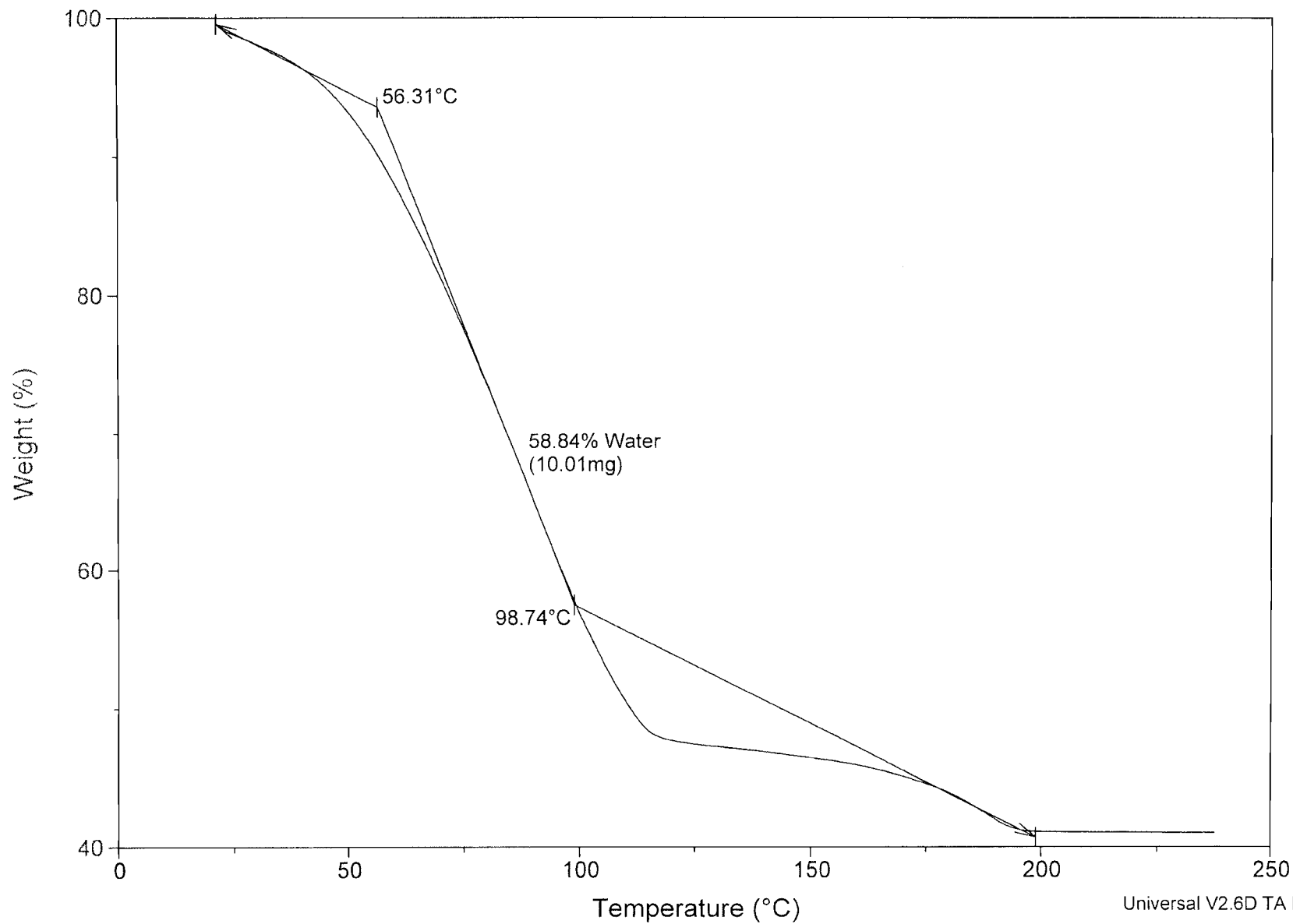
Data Entry Comments:

S = Batch Slot Number, R = Retest Number, A = Aliquot Code.

Sample: TERLIQ 23N26A  
Size: 17.0070 mg  
Method: TERLIQ  
Comment: TERLIQ

## TGA

File: C:\...TER031609.001  
Operator: ADP  
Run Date: 16-Mar-09 08:20



Universal V2.6D TA Instruments

Sample: S09T001773 SAM  
Size: 11.7320 mg  
Method: Sample  
Comment: SAM

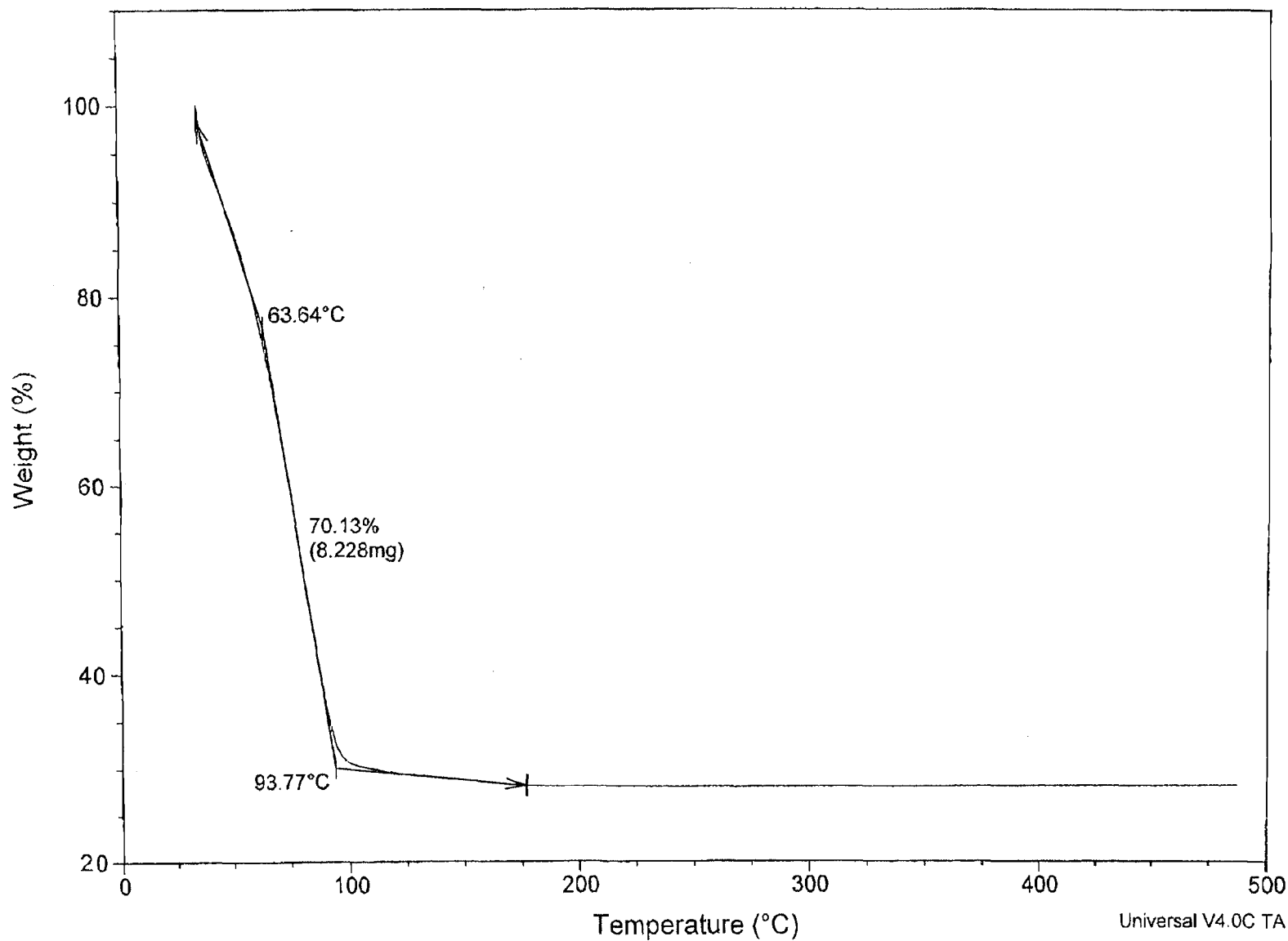
## TGA

File: C:\...TGA-6\TGA-6 2008\SAM031609.010  
Operator: ADP  
Run Date: 16-Mar-2009 09:28  
Instrument: 2050 TGA V5.4A

Fax sent by : 509 376 6783

RPP-RPT-40709 Rev.1  
SAMPLE CUSTODIAN ZBI

03-16-09 15:00 Pg: 8/10



Universal V4.0C TA Instruments

Sample: S09T001773 DUP  
Size: 9.7280 mg  
Method: Sample  
Comment: DUP

## TGA

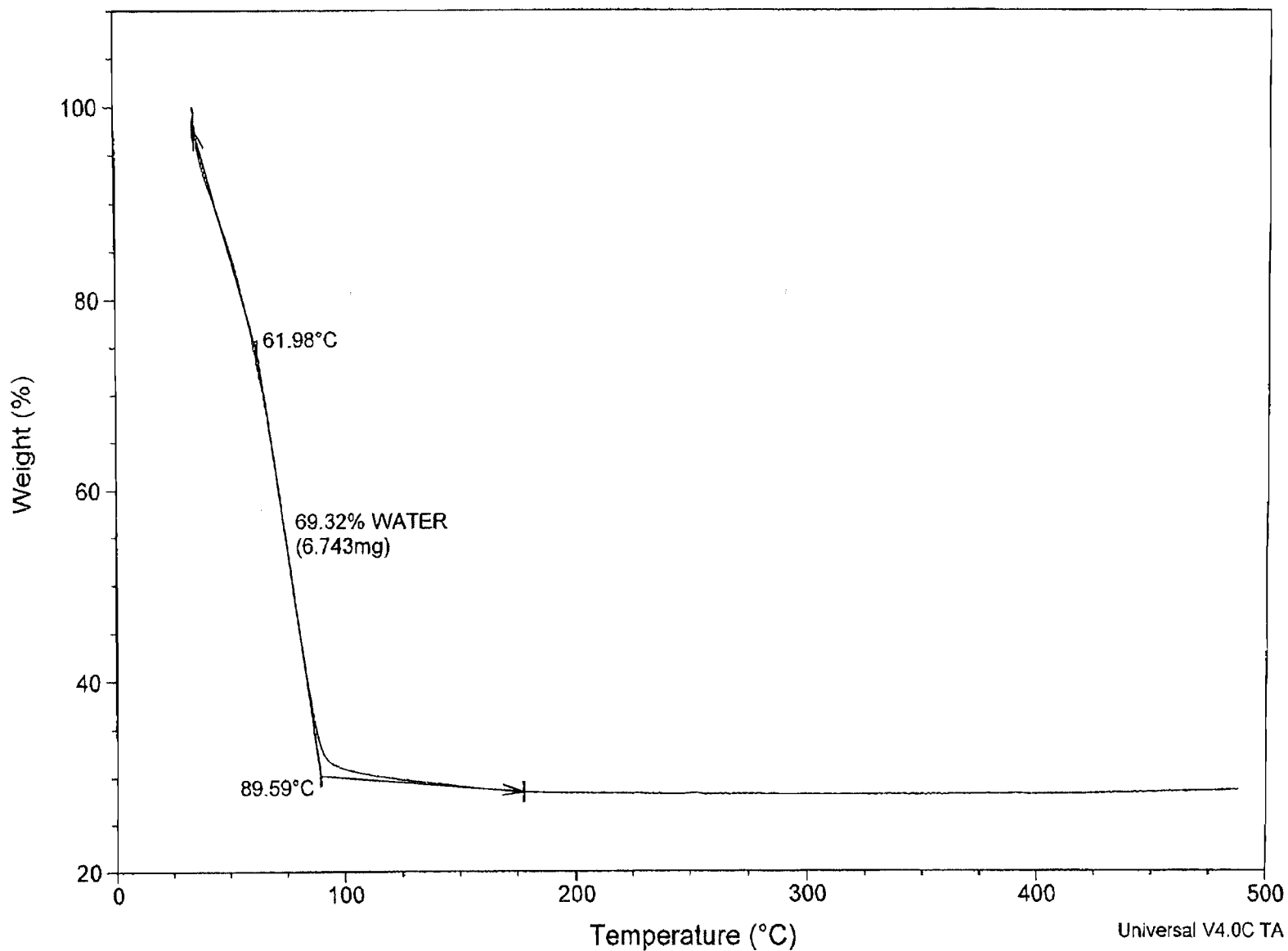
File: C:\TGA-6\TGA-6 2008\SAM031609.011  
Operator: ADP  
Run Date: 16-Mar-2009 11:24  
Instrument: 2050 TGA V5.4A

Fax sent by : 509 376 6783

RPP-RPT-40709 Rev. 1  
SAMPLE CUSTODIAN ZB1

03-16-09 15:00

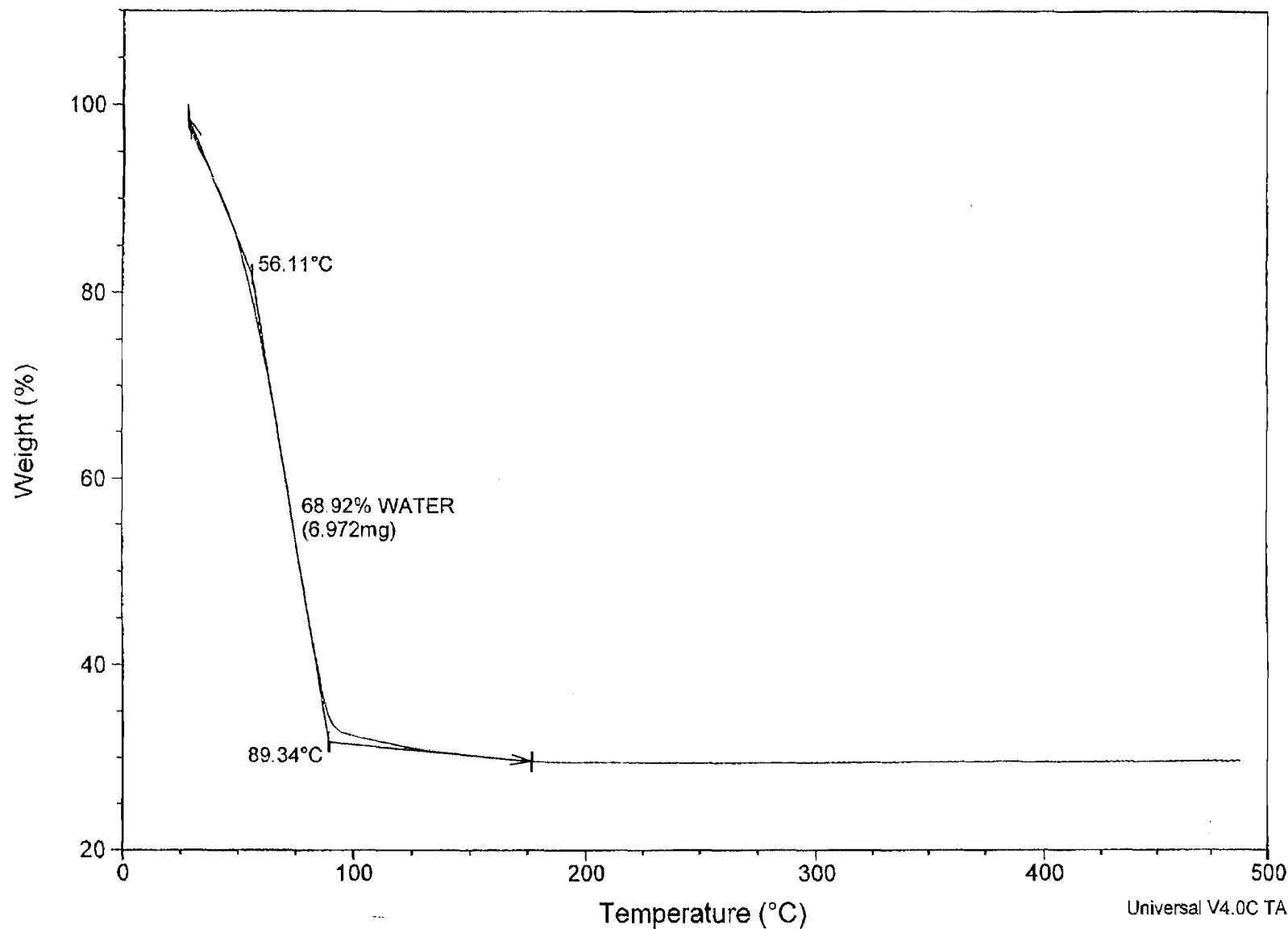
Pg: 9/10



Sample: S09T001807 SAM  
Size: 10.1160 mg  
Method: Sample  
Comment: SAM

## TGA

File: C:\...TGA-6\TGA-6 2008\SAM031609.012  
Operator: ADP  
Run Date: 16-Mar-2009 13:24  
Instrument: 2050 TGA V5.4A



Universal V4.0C TA Instruments

## LABCORE Completed Batch Report for Batch# 00013453

**Analyst:** Purinton, Tony

**Book#:** 23N26A

**Instrument:** DSC5/TGA7 Analyzer

**Method:** TGA-TA, LA-514-115 Rev/Mod E-0

**Specification:** AW106 EVAP3

**Prep Batch:**

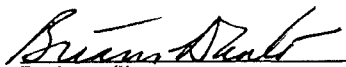
**Batch Comment:** AW106 EVAP3 for TGA adp

Seq Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
Sample Sequence 1															
1 LCS-INST	S0903190028		0	0	%WATER	LIQUID	59.64	58.45			0.01	%	98.005	% Recovery	
Sample Sequence 2															
2 SAMPLE	S09T001795		0	0	%WATER	LIQUID	N/A	71.52			0.01	%			
Sample Sequence 3															
3 DUP	S0903190029	S09T001795	0	0	%WATER	LIQUID	71.52	71.6			0.01	%	0.11179	% RPD	
Sample Sequence 4															
4 SAMPLE	S09T001783		0	0	%WATER	LIQUID	N/A	71.29			0.01	%			

### Comments Section:

Data Flagger Status:  
 Flagging Completed

**Final Page for Batch# 00013453**

 5/6/09  
 Reviewer Signature Date

2nd reviewer:  5/6/09

### LABCORE Completed Batch Report for Batch# 00013453

Seq	Sample#	QC Type	Assoc. Sample	Sample Group	Customer Id	Specification
1	S0903190028	LCS-INST				
2	S09T001795	SAMPLE		20090162	6AW-08-03B	AW106 EVAP3
3	S0903190029	DUP	S09T001795			
4	S09T001783	SAMPLE		20090162	6AW-08-02B	AW106 EVAP3

RPP-RPT-40709 Rev. 1

## LABCORE Data Entry Template for Batch# 00013453

Analyst: Purinton, Tony

Standard ID / Book#: 23V26A

Instrument: DSC5/TGA7 Analyzer

Method: TGA-TA, LA-514-115 Rev/Mod E-0

Prep Batch:

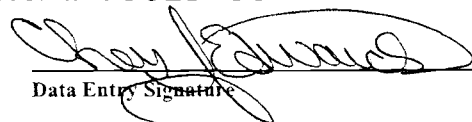
Batch Comment: AW106 EVAP3 for TGA adp

S	Type	Sample	R	A	Matrix	Group#	Project
1	LCS-INST		0		LIQUID		
	Analytes Requested:	%WATER					
2	SAMPLE	S09T001783	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	%WATER					
3	DUP	S09T001783 <sup>5-6-09</sup>	0		LIQUID		
	Analytes Requested:	%WATER					
4	SAMPLE	S09T001795	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	%WATER					

## Final Page for Batch# 00013453

  
Analyst Signature

3/16/09  
Date

  
Data Entry Signature

3/19/09  
Date

Data Entry Comments:

S = Batch Slot Number, R = Retest Number, A = Aliquot Code.



Sample: TERLIQ 23N26A  
Size: 17.8410 mg  
Method: TERLIQ  
Comment: TERLIQ

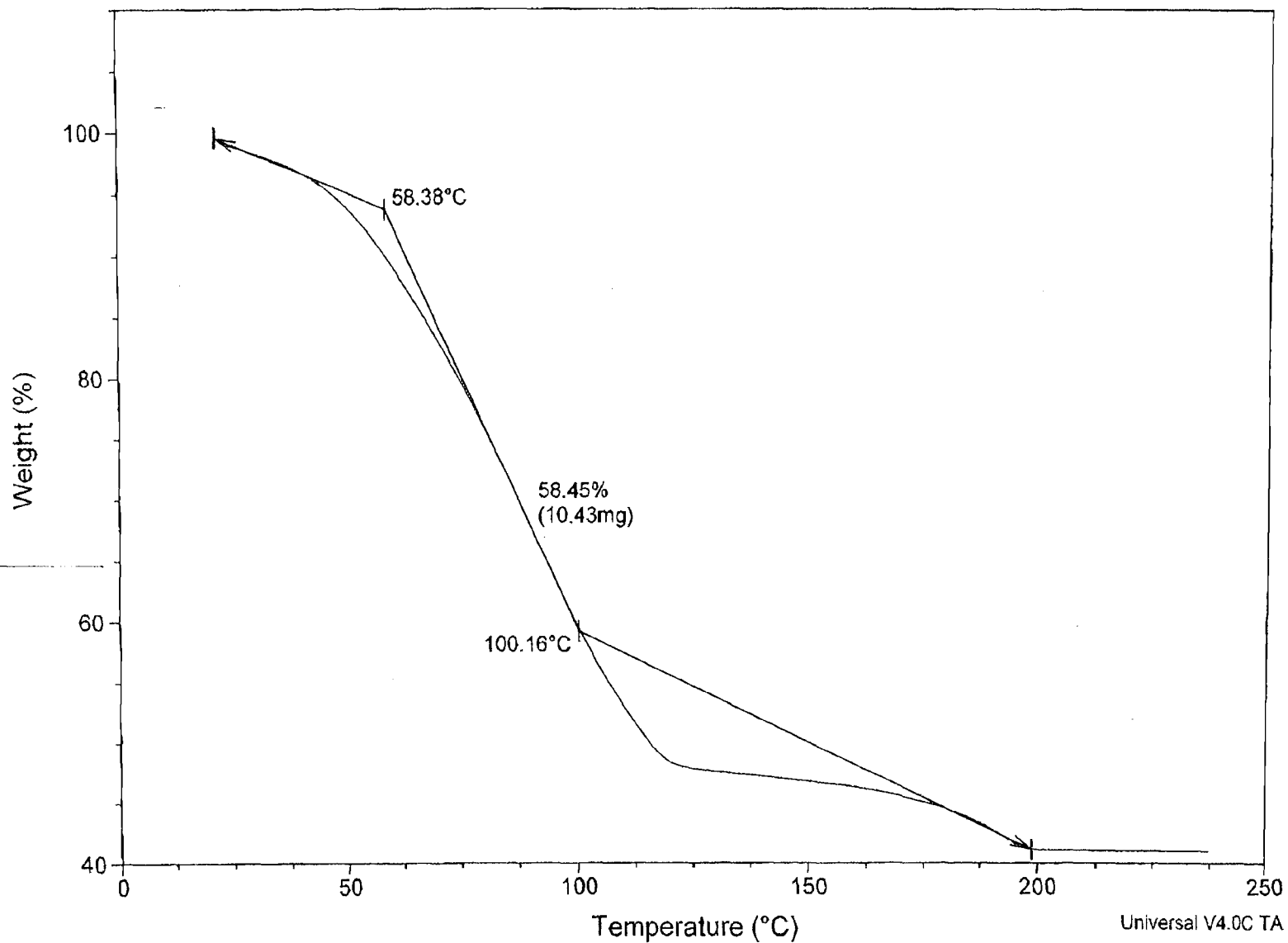
## TGA

File: C:\...TGA-7\TGA-7 2008\TER031609.001  
Operator: ADP  
Run Date: 16-Mar-2009 08:24  
Instrument: 2050 TGA V5.4A

Fax sent by : 509 376 6783

RPP-RPT-40709 Rev. 1  
SAMPLE CUSTODIAN ZB1

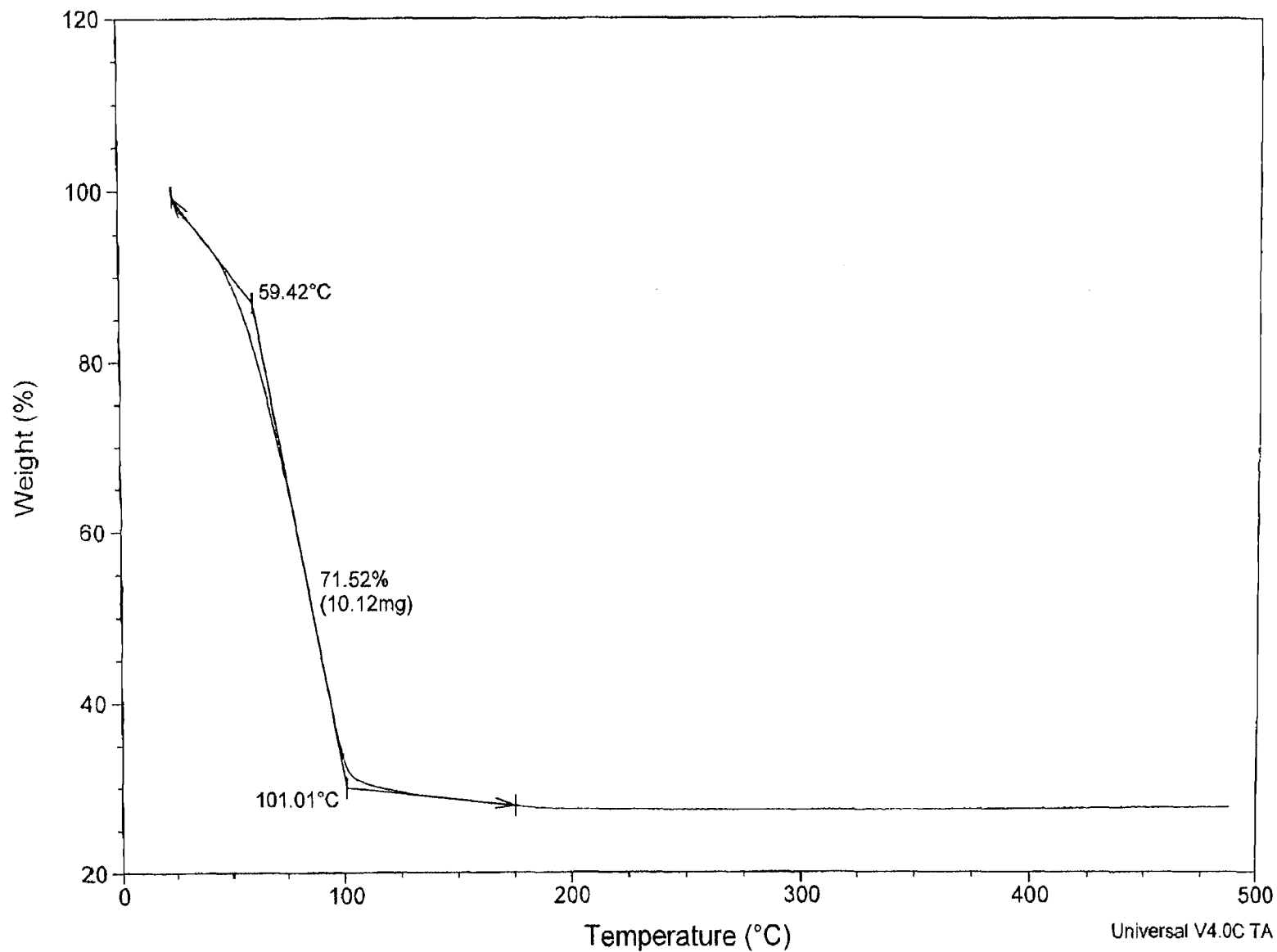
03-16-09 15:00 Pg: 7/10



Sample: S09T001795 SAM  
Size: 14.1470 mg  
Method: Sample  
Comment: SAM

## TGA

File: C:\...TGA-7\TGA-7 2008\SAM031609.001  
Operator: ADP  
Run Date: 16-Mar-2009 09:31  
Instrument: 2050 TGA V5.4A



Fax sent by : 509 376 6783

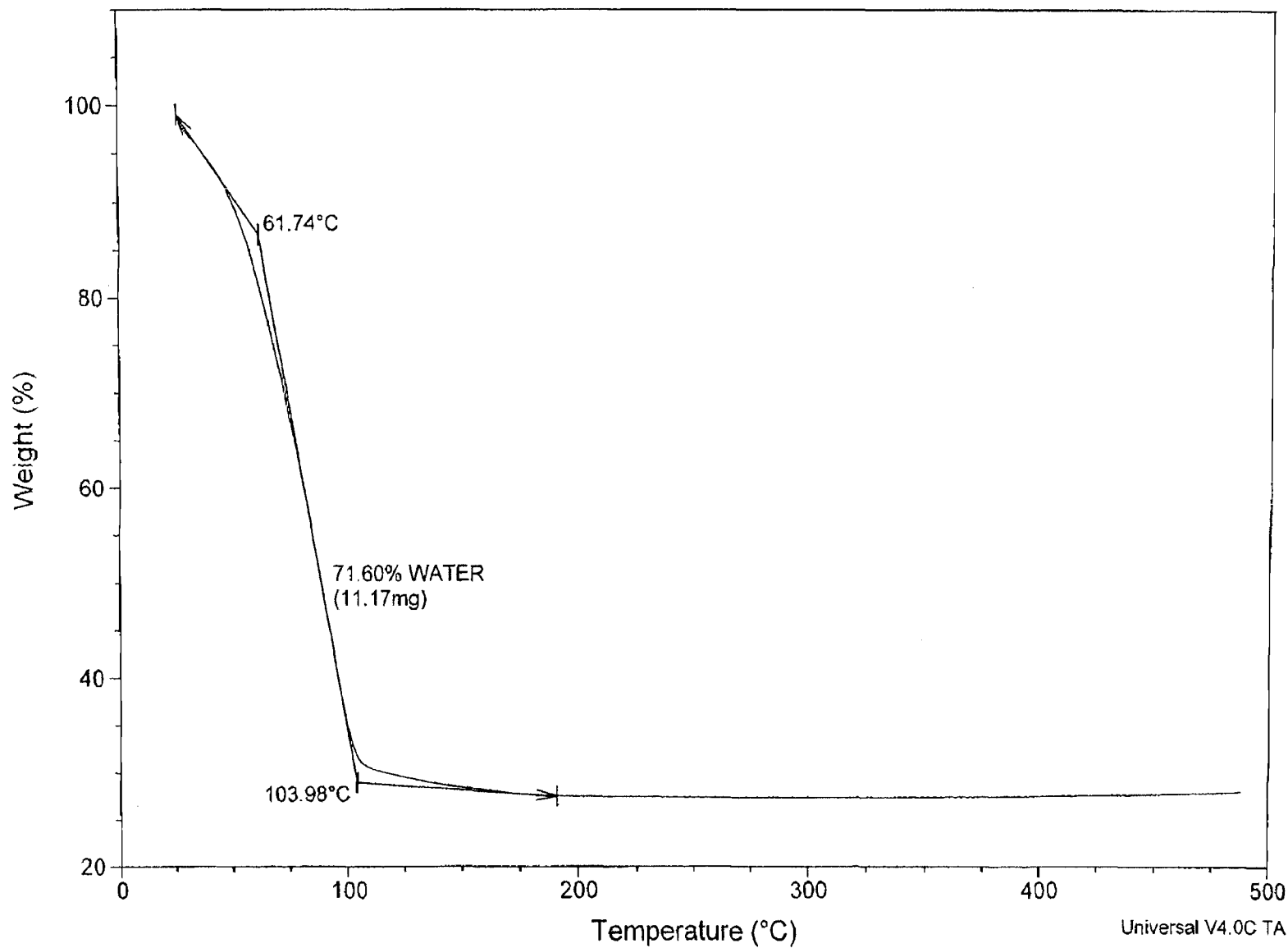
RPP-RPT-40709 Rev. 1  
SAMPLE CUSTODIAN ZH1

03-16-09 14:59 Pg: 3/10

Sample: S09T001795 DUP  
Size: 15.6040 mg  
Method: Sample  
Comment: DUP

## TGA

File: C:\TGA-7\TGA-7 2008\SAM031609.002  
Operator: ADP  
Run Date: 16-Mar-2009 11:13  
Instrument: 2050 TGA V5.4A



Fax sent by : 509 376 6783

RPP-RPT-40709 Rev. 1  
SAMPLE CUSTODIAN ZB1

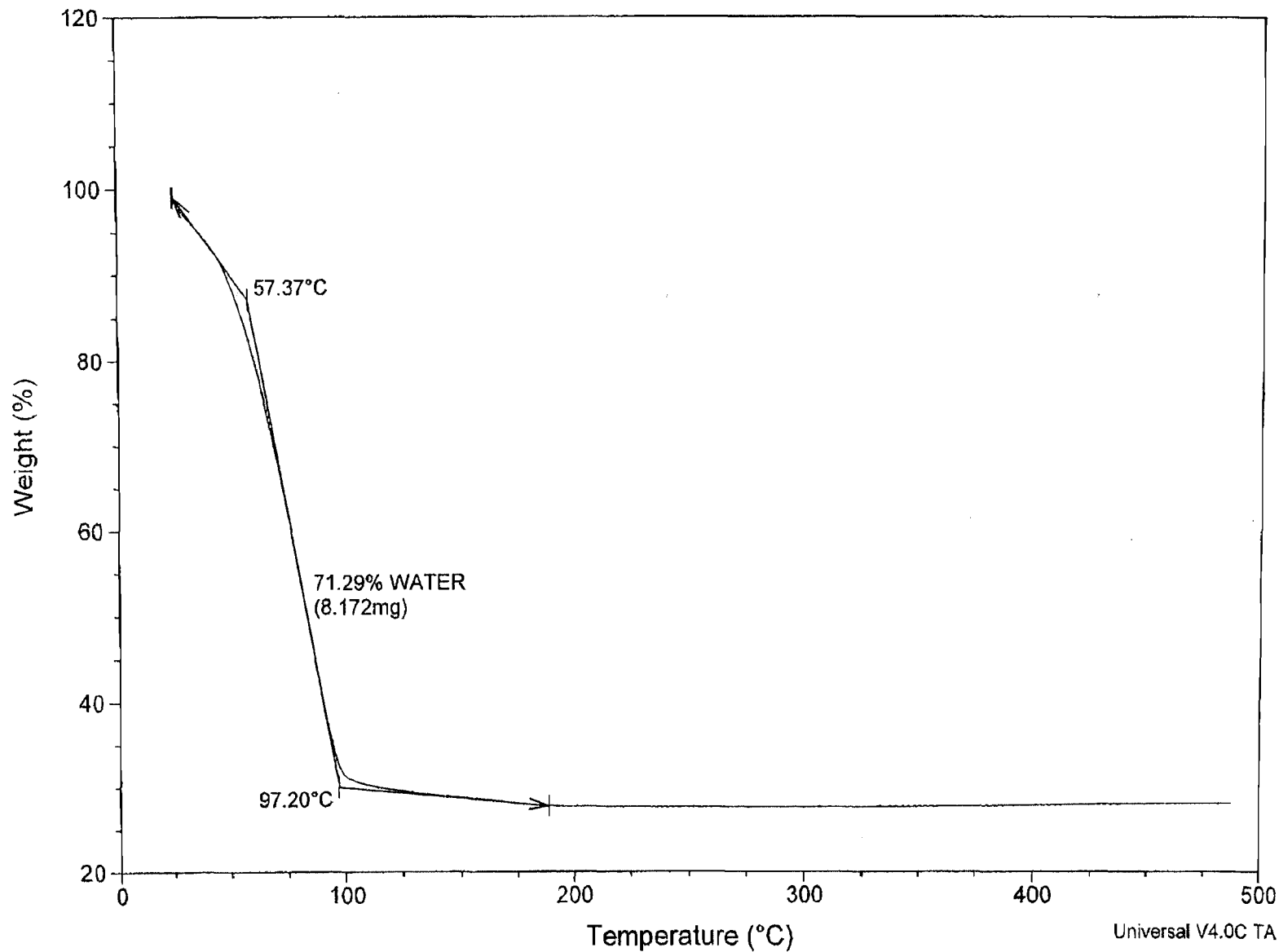
03-16-09 14:59 Pg: 4/10

Universal V4.0C TA Instruments

Sample: S09T001783 SAM  
Size: 11.4630 mg  
Method: Sample  
Comment: SAM

## TGA

File: C:\TGA-7\TGA-7 2008\SAM031609.003  
Operator: ADP  
Run Date: 16-Mar-2009 13:13  
Instrument: 2050 TGA V5.4A



Fax sent by : 509 376 6783

RPP-RPT-40709 Rev. 1  
SAMPLE CUSTODIAN ZB1

03-16-09 15:00 Pg: 10/10

Universal V4.0C TA Instruments

03/16/2009 MON 15:54 [TX/RX NO 5520] 010

## LABCORE Completed Batch Report for Batch# 00013482

**Analyst:** Purinton, Tony  
**Instrument:** DSC4/TGA6 Analyzer  
**Method:** DSC - DRY CALC., LA-514-115 Rev/Mod E-0  
**Specification:** AW106 EVAP3  
**Prep Batch:**  
**Batch Comment:** Dry DSC Calc for AW106 EVAP3.

**Book#:** NA

Seq Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
Sample Sequence 1															
1 SAMPLE	S09T001773		0	0	DSC Exotherm Dry	LIQUID	N/A	21.64				Joules/g Dry			
Sample Sequence 2															
2 DUP	S0903230007	S09T001773	0	0	DSC Exotherm Dry	LIQUID	21.64	31.06				Joules/g Dry	35.750	% RPD	
Sample Sequence 3															
3 SAMPLE	S09T001783		0	0	DSC Exotherm Dry	LIQUID	N/A	0				Joules/g Dry			
Sample Sequence 4															
4 SAMPLE	S09T001795		0	0	DSC Exotherm Dry	LIQUID	N/A	0				Joules/g Dry			
Sample Sequence 5															
5 SAMPLE	S09T001807		0	0	DSC Exotherm Dry	LIQUID	N/A	0				Joules/g Dry			

re-analyzed  
in batch  
#13516  
BD  
3-25-09


### Comments Section:

**Comments for sample: S09T001773, test: DSC - DRY CALC., constituent: DSC Exotherm Dry**

The %RPD for sample S09T001773 and Dup results found > control limit. Repeat analysis might not guarantee for a better result.

Data Flagger Status:  
Flagging Completed

**Final Page for Batch# 00013482**

  
Reviewer Signature

3/23/09  
Date

2nd reviewer:  3/23/09

### LABCORE Completed Batch Report for Batch# 00013482

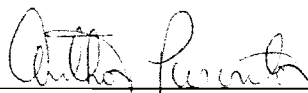
Seq	Sample#	QC Type	Assoc. Sample	Sample Group	Customer Id	Specification
1	S09T001773	SAMPLE		20090162	6AW-08-01	AW106 EVAP3
2	S0903230007	DUP	S09T001773			
3	S09T001783	SAMPLE		20090162	6AW-08-02B	AW106 EVAP3
4	S09T001795	SAMPLE		20090162	6AW-08-03B	AW106 EVAP3
5	S09T001807	SAMPLE		20090163	6AW-08-04B	AW106 EVAP3

## LABCORE Data Entry Template for Batch# 00013482

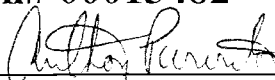
Analyst: Standard ID / Book#: N/A  
Instrument:  
Method: DSC - DRY CALC., LA-514-115 Rev/Mod E-0  
Prep Batch:  
Batch Comment: Dry DSC Calc for AW106 EVAP3.

S	Type	Sample	R	A	Matrix	Group#	Project
1	SAMPLE	S09T001773	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested: DSC Exotherm Dry						
2	DUP	S09T001773	0		LIQUID		
	Analytes Requested: DSC Exotherm Dry						
3	SAMPLE	S09T001783	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested: DSC Exotherm Dry						
4	SAMPLE	S09T001795	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested: DSC Exotherm Dry						
5	SAMPLE	S09T001807	0		LIQUID	20090163	AW106 EVAP3
	Analytes Requested: DSC Exotherm Dry						

## Final Page for Batch# 00013482

  
\_\_\_\_\_  
Analyst Signature

3/23/09  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
Data Entry Signature

3/23/09  
\_\_\_\_\_  
Date

Data Entry Comments:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

S - Batch Slot Number, R = Retest Number, A = Aliquot Code.



Dry DSC

Applicable Procedure - LA-514-115

TEMPLATE

Spreadsheet For The Calculation of Dry DSC results

Rev-Mod of Procedure Used	Sample ID.	DSC Result (J/g)	TGA Result (% water)	TGA ave	Dry DSC result (J/g)
E-0	S09T001773	6.55	70.13	69.73	21.64
Batch #	S09T001773D	9.40	69.32	69.73	31.06
13482	S09T001783	0	71.52	71.52	0
Test Code	S09T001795	0	71.29	71.29	0
Dry DSC	S09T001807	0	68.92	68.92	0
Matrix				0	0
Liquids				0	0
Instrument Code				0	0
NA				0	0
Analyst				0	0
ADP				0	0
Date Analyzed				0	0
3/17/09				0	0
Time				0	0
15:00				0	0

Page 1 of 1





## LABCORE Completed Batch Report for Batch# 00013501

**Analyst:** Purinton, Tony

**Book#:** 12N14B

**Instrument:** DSC5/TGA7 Analyzer

**Method:** DSC-TA, LA-514-115 Rev/Mod E-0

**Specification:** AW106 EVAP3

**Prep Batch:**

**Batch Comment:** Rerun for AW106 DSC adp

Seq Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RI/UL)	Unit	Yield	Yield Unit	Flags
Sample Sequence 1															
1 LCS-INST	S0903240009		0	0	DSC Exotherm	SOLID	28.45	26.83				Joules/g	94.306	% Recovery	
Sample Sequence 2															
2 LCS-INST	S0903240010		0	0	DSC Exotherm	SOLID	28.45	28.13				Joules/g	98.875	% Recovery	
Sample Sequence 3															
3 SAMPLE	S09T001773		0	1	DSC Exotherm	LIQUID	N/A	0				Joules/g			
Sample Sequence 4															
4 DUP	S0903240011	S09T001773	0	0	DSC Exotherm	LIQUID	0	0				Joules/g	0	% RPD	


### Comments Section:

Data Flagger Status:  
Flagging Completed

**Final Page for Batch# 00013501**

  
Reviewer Signature

3/25/09  
Date

2nd reviewer: 

3/25/09

### LABCORE Completed Batch Report for Batch# 00013501

Seq	Sample#	QC Type	Assoc. Sample	Sample Group	Customer Id	Specification
1	S0903240009	LCS-INST				
2	S0903240010	LCS-INST				
3	S09T001773	SAMPLE		20090162	6AW-08-01	AW106 EVAP3
4	S0903240011	DUP	S09T001773			

03/24/2009 TUE 14:54 [TX/RX NO 5542] 001

3/24/2009 10:48:47AM  
 IncompleteBatchShort Version 2.7.22  
 batchreports 2.7.25

Page: 1

## LABCORE Data Entry Template for Batch# 00013501

Analyst: Purinton, Tony

Standard ID / Book#:

12N14B

Instrument: DSC5/TGA7 Analyzer

Method: DSC-TA, LA-514-115 Rev/Mod EO

Prep Batch:

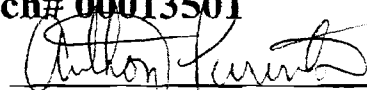
Batch Comment: Rerun for AW106 DSC adp

S	Type	Sample	R	A	Matrix	Group#	Project
1	LCS-INST		0		SOLID		
	Analytes Requested: DSC Exotherm						
2	LCS-INST		0		SOLID		
	Analytes Requested: DSC Exotherm						
3	SAMPLE	S09T001773	1		LIQUID	20090162	AW106 EVAP3
	Analytes Requested: DSC Exotherm						
4	DUP	S09T001773	0		LIQUID		
	Analytes Requested: DSC Exotherm						

Final Page for Batch# 00013501

  
 Analyst Signature

3/24/09  
 Date

  
 Data Entry Signature

3/24/09  
 Date

Data Entry Comments:

S = Batch Slot Number, R = Retest Number, A = Aliquot Code.

Pg: 1/5 03-24-09 13:59

SAMPLE CUSTODIAN 2B1

Fax sent by : 509 376 6783

Sample: 12N14B STD  
Size: 12.2900 mg  
Method: Standard  
Comment: STD

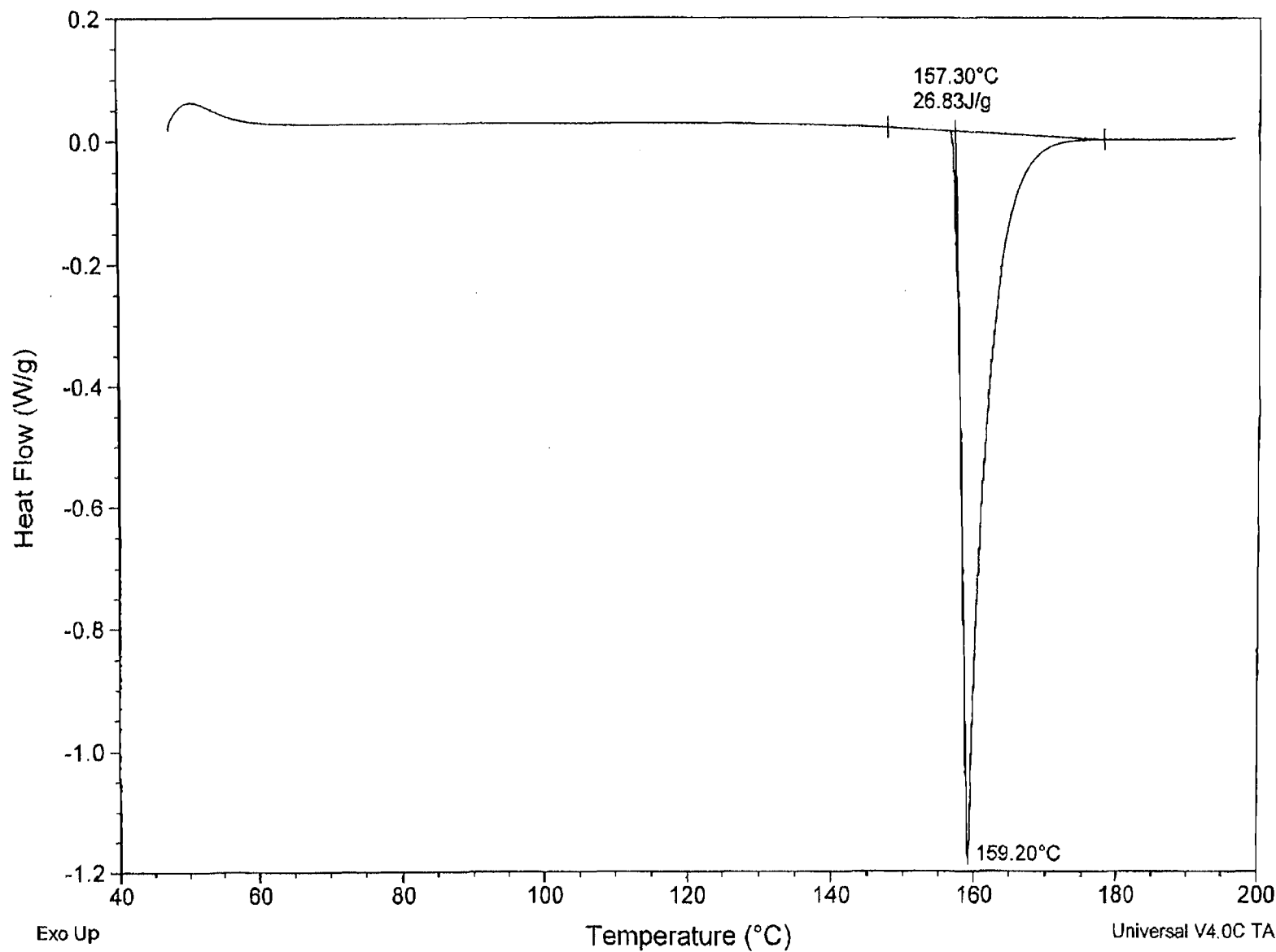
DSC

File: C:\TA\Data\DSC-5\DSC-5 2009\IN090324.A01  
Operator: ADP  
Run Date: 24-Mar-2009 09:42  
Instrument: 2920 DSC V2.6A

Fax sent by : 509 376 6783

RPP-RPT-40709 Rev. 1  
SAMPLE CUSTODIAN ZB1

03-24-09 13:59 Pg: 5/5



Sample: 12N14B STD  
Size: 12.4600 mg  
Method: Standard  
Comment: STD

# DSC

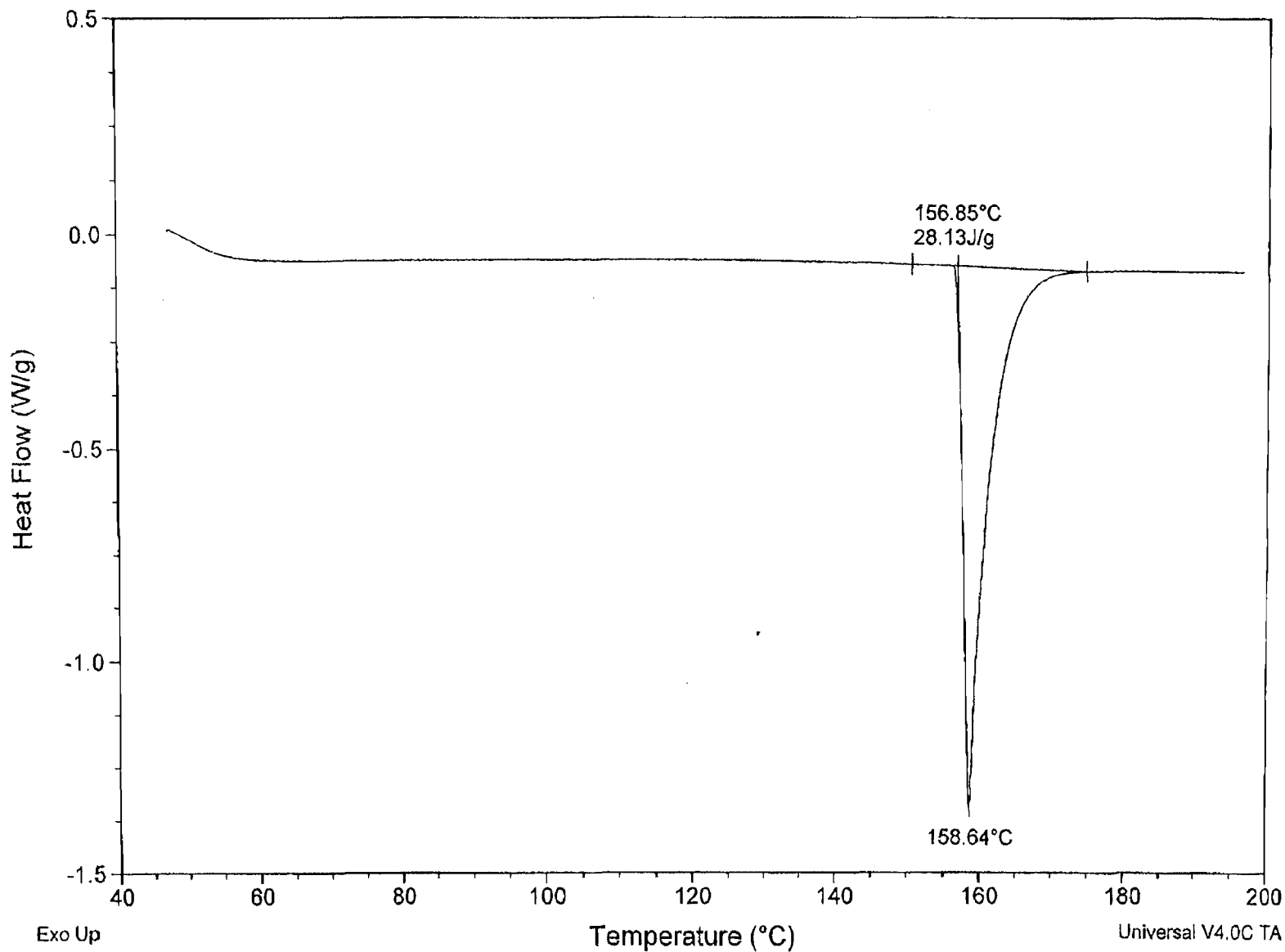
File: C:\TA\Data\DSC-5\DSC-5 2009\IN090324.B01  
Operator: ADP  
Run Date: 24-Mar-2009 09:42  
Instrument: 2920 DSC V2.6A

Fax sent by : 509 376 6783

RPP-RPT-40709 Rev. 1  
SAMPLE CUSTODIAN 2B1

03-24-09 13:59

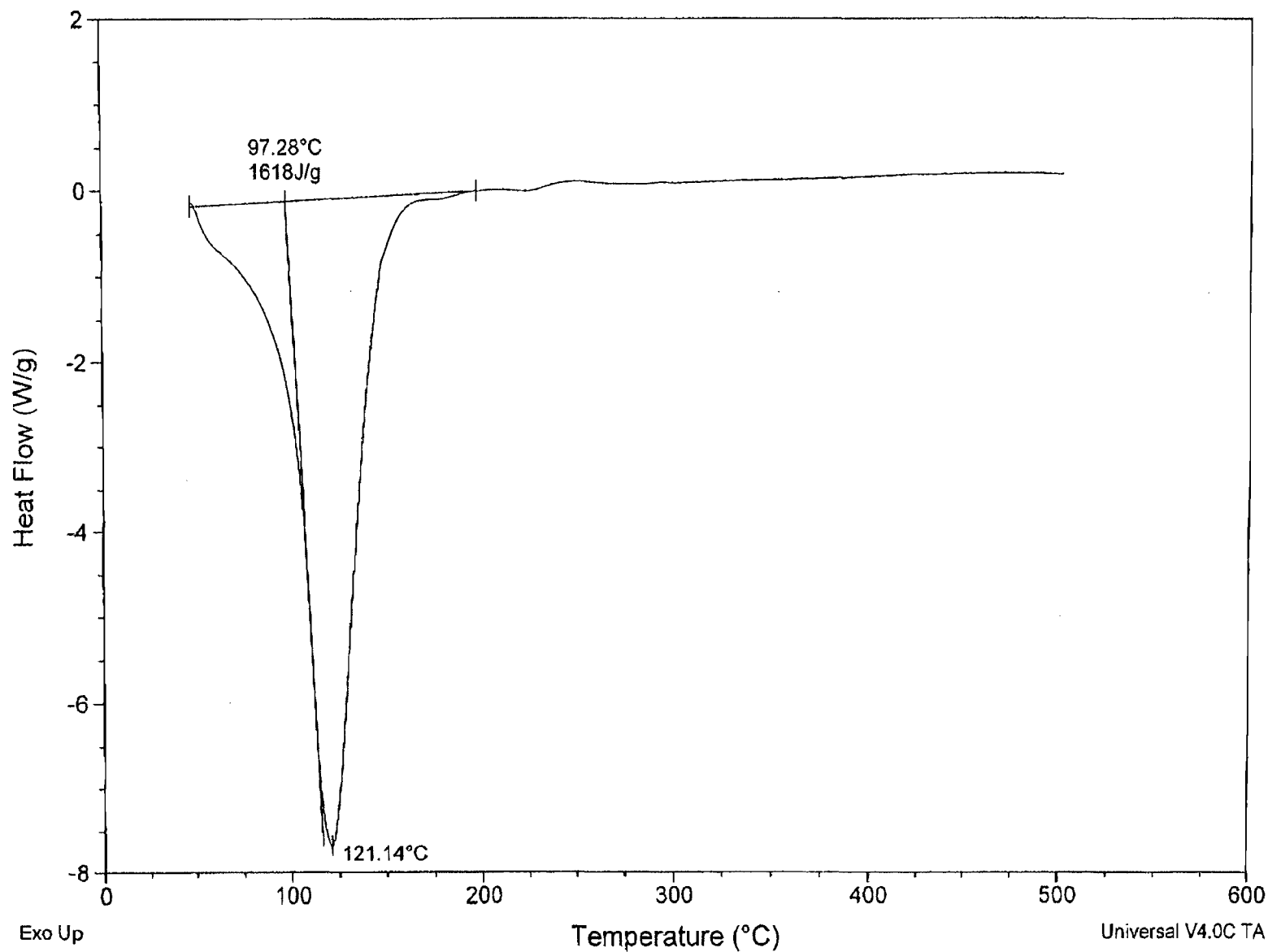
Pg: 4/5



Sample: S09T001773 SAM  
Size: 11.4700 mg  
Method: Sample  
Comment: SAMPLE

DSC

File: C:\DSC-5\DSC-5 2009\SAM090324.A01  
Operator: ADP  
Run Date: 24-Mar-2009 11:13  
Instrument: 2920 DSC V2.6A



Fax sent by : 509 376 6783

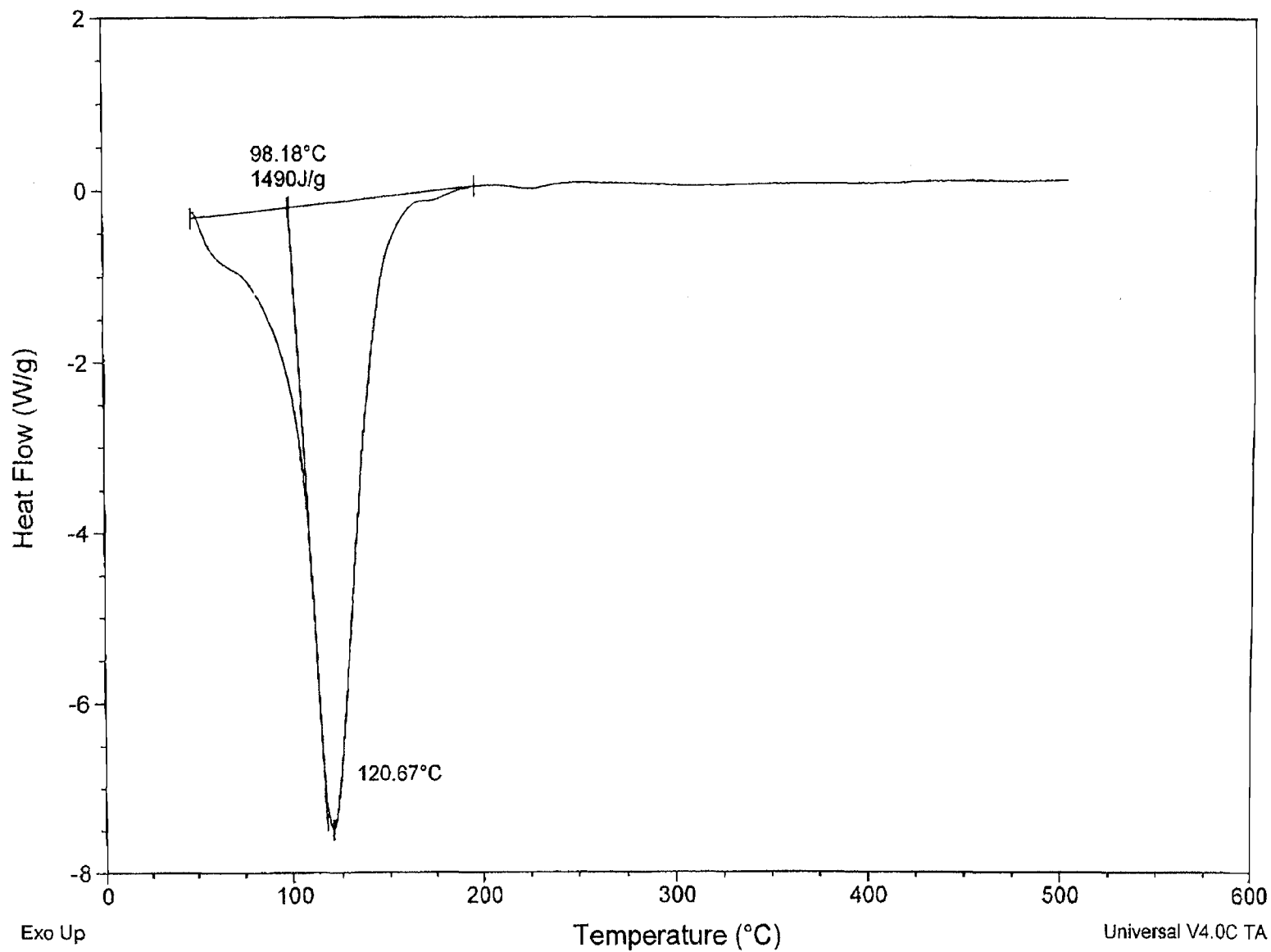
RPP-RPT-40709 Rev. 1  
SAMPLE CUSTODIAN ZB1

03-24-09 13:59 Pg: 2/5

Sample: S09T001773 DUP  
Size: 10.8400 mg  
Method: Sample  
Comment: DUP

# DSC

File: C:\...\DSC-5\DSC-5 2009\SAM090324.B01  
Operator: ADP  
Run Date: 24-Mar-2009 11:13  
Instrument: 2920 DSC V2.6A



## LABCORE Completed Batch Report for Batch# 00013516

**Analyst:** Purinton, Tony

**Book#:** NA

**Instrument:** DSC5/TGA7 Analyzer

**Method:** DSC - DRY CALC., LA-514-115 Rev/Mod E-0

**Specification:** AW106 EVAP3

**Prep Batch:**

**Batch Comment:** AW106 EVAP3 for dry DSC calculation.

Seq Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
Sample Sequence 1															
1 SAMPLE	S09T001773		0	1	DSC Exotherm Dry	LIQUID	N/A	0				Joules/g Dry			
Sample Sequence 2															
2 DUP	S0903240059	S09T001773	0	0	DSC Exotherm Dry	LIQUID	0	0				Joules/g Dry 0		% RPD	

### Comments Section:

Data Flagger Status:  
Flagging Completed

**Final Page for Batch# 00013516**

  
Reviewer Signature

3/25/09  
Date

2nd reviewer: KB

3/25/09



LABCORE Completed Batch Report for Batch# 00013516

Seq	Sample#	QC Type	Assoc. Sample	Sample Group	Customer Id	Specification
1	S09T001773	SAMPLE		20090162	6AW-08-01	AW106 EVAP3
2	S0903240059	DUP	S09T001773			

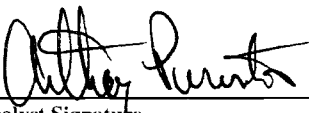
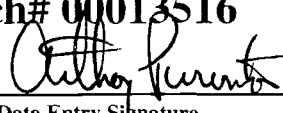
Units shown for QC (BLK/BKG) may not reflect the actual units.

**LABCORE Data Entry Template for Batch# 00013516****Analyst:** Purinton, Tony**Standard ID / Book#:**

120148

**Instrument:** DSC5/TGA7 Analyzer**Method:** DSC - DRY CALC., LA-514-115 Rev/Mod EO**Prep Batch:****Batch Comment:** AW106 EVAP3 for dry DSC calculation.

S	Type	Sample	R	A	Matrix	Group#	Project
1	SAMPLE	S09T001773	1		LIQUID	20090162	AW106 EVAP3
Analytes Requested: DSC Exotherm Dry							
2	DUP	S09T001773	0		LIQUID		
Analytes Requested: DSC Exotherm Dry							

**Final Page for Batch# 00013516**  
\_\_\_\_\_  
Analyst Signature3/24/09  
\_\_\_\_\_  
Date  
\_\_\_\_\_  
Data Entry Signature3/24/09  
\_\_\_\_\_  
Date

Data Entry Comments:

S = Batch Slot Number, R = Retest Number, A = Aliquot Code.



# Dry DSC

Applicable Procedure - LA-514-115

## TEMPLATE

Spreadsheet For The Calculation of Dry DSC results

Rev-Mod of Procedure Used	Sample ID.	DSC Result (J/g)	TGA Result (% water)	TGA ave	Dry DSC result (J/g)
E-0	S09T001773	0	70.13	69.73	0.00
Batch #	S09T001773D	0	69.32	69.73	0.00
13516				0.00	0.00
Test Code				0.00	0.00
Dry DSC				0.00	0.00
Matrix				0.00	0.00
Liquid				0.00	0.00
Instrument Code				0.00	0.00
NA				0.00	0.00
Analyst				0.00	0.00
ADP				0.00	0.00
Date Analyzed				0.00	0.00
3/24/2009				0.00	0.00
Time				0.00	0.00
15:00				0.00	0.00

Page 1 of 1



## LABCORE Completed Batch Report for Batch# 00014209

**Analyst:** Maling, Tracy

**Book#:** *bench sheet*

**Instrument:** Hg by Cold Vapor by FIAS

**Method:** HG, LA-325-106 Rev/Mod G-0

**Specification:** AW106 EVAP3

**Prep Batch:**

**Batch Comment:** AW106 rerun and MAPEP20 for hg trm tjh

Seq Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
Sample Sequence 1															
1 ICV	S0905110013		0	0	Mercury	LIQUID	.01	9.8120E-03			1.00E-04	ug/mL	98.12	% Recovery	
Sample Sequence 2															
2 ICB	S0905110014		0	0	Mercury	LIQUID		<1.0000E-04			1.00E-04	ug/mL			
Sample Sequence 3															
3 LLS	S0905110015		0	0	Mercury	LIQUID	.001	9.4800E-04			1.00E-04	ug/mL	94.8	% Recovery	
Sample Sequence 4															
4 SAMPLE	S09T001751		0	1	Mercury	LIQUID	N/A	<1.0000E-03			1.00E-03	ug/mL			U
Sample Sequence 5															
5 SAMPLE	S09T001761		0	1	Mercury	LIQUID	N/A	<2.0000E-03			2.00E-03	ug/mL			U
Sample Sequence 6															
6 SAMPLE	S09T001772		0	1	Mercury	LIQUID	N/A	6.8400E-03			1.00E-03	ug/mL			J
Sample Sequence 7															
7 SAMPLE	S09T001782		0	1	Mercury	LIQUID	N/A	5.5100E-03			1.00E-03	ug/mL			J
Sample Sequence 8															
8 SAMPLE	S09T001794		0	1	Mercury	LIQUID	N/A	4.7600E-03			1.00E-03	ug/mL			Jb
Sample Sequence 9															
9 DUP	S0903240063	S09T001794	0	1	Mercury	LIQUID	4.7600E-03	4.5800E-03			1.00E-03	ug/mL	3.8544	% RPD	
Sample Sequence 10															
10 SPK-PREDIG	S0903240069	S09T001794	0	1	Mercury	LIQUID	.05	3.2960E-02			1.00E-03	ug/mL	56.4	% Recovery	
Sample Sequence 11															
11 SPK-POST	S0903240068	S09T001794	0	1	Mercury	LIQUID	5	5.6889E-02			1.00E-03	ug/mL	98.84	% Recovery	
Sample Sequence 12															
12 SAMPLE	S09T001806		0	1	Mercury	LIQUID	N/A	4.8200E-03			1.00E-03	ug/mL			J
Sample Sequence 13															
13 CCV	S0905110019		0	0	Mercury	LIQUID	.01	1.0180E-02			1.00E-04	ug/mL	101.8	% Recovery	
Sample Sequence 14															
14 CCB	S0905110020		0	0	Mercury	LIQUID		<1.0000E-04			1.00E-04	ug/mL			
Sample Sequence 16															
16 DUP	S0905110022	S09Q000019	0	0	Mercury	LIQUID					1.00E-03	ug/mL	0.70505	% RPD	

Units shown for QC (BLK/BKG) may not reflect the actual units.

RPP-RPT-40709 Rev. 1

## LABCORE Completed Batch Report for Batch# 00014209

Seq Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
Sample Sequence 17															
17 SPK-PREDIG	S0905110021	S09Q000019	0	0	Mercury	LIQUID					1.00E-03	ug/mL	1.0974	% Recovery	
Sample Sequence 18															
18 CCV	S0905050165		0	0	Mercury	LIQUID	.01	9.9670E-03			1.00E-04	ug/mL	99.67	% Recovery	
Sample Sequence 19															
19 CCB	S0905050166		0	0	Mercury	LIQUID		<1.0000E-04			1.00E-04	ug/mL			

### Comments Section:


Comments for sample: S0903240069, test: HG, constituent: Mercury

This is a repeat analysis for AW 106, a post spike was performed due to SpK predig out of control limit.

Data Flagger Status:

Flagging Completed

### Final Page for Batch# 00014209

 5/11/09  
Reviewer Signature Date

2nd reviewer: Paul R. Poy 5/11/09

## LABCORE Completed Batch Report for Batch# 00014209

Seq	Sample#	QC Type	Assoc. Sample	Sample Group	Customer Id	Specification
1	S0905110013	ICV				
2	S0905110014	ICB				
3	S0905110015	LLS				
4	S09T001751	SAMPLE		20090162	6AW-08-01FB1	AW106 EVAP3
5	S09T001761	SAMPLE		20090162	6AW-08-01FB2	AW106 EVAP3
6	S09T001772	SAMPLE		20090162	6AW-08-01	AW106 EVAP3
7	S09T001782	SAMPLE		20090162	6AW-08-02B	AW106 EVAP3
8	S09T001794	SAMPLE		20090162	6AW-08-03B	AW106 EVAP3
9	S0903240063	DUP	S09T001794			
10	S0903240069	SPK-PREDIG	S09T001794			
11	S0903240068	SPK-POST	S09T001794			
12	S09T001806	SAMPLE		20090163	6AW-08-04B	AW106 EVAP3
13	S0905110019	CCV				
14	S0905110020	CCB				
16	S0905110022	DUP	S09Q000019			
17	S0905110021	SPK-PREDIG	S09Q000019			
18	S0905050165	CCV				
19	S0905050166	CCB				

RPP-RPT-40709 Rev. 1

5/11/2009 9:34:11AM  
 IncompleteBatchShort Version 2.7.22  
 batchreports 2.7.25

Page: 1

## LABCORE Data Entry Template for Batch# 00014209

Analyst: Maling, Tracy

Standard ID / Book#:

Instrument: Hg by Cold Vapor by FIAS

Method: HG, LA 325-106 Rev/Mod G/C

Prep Batch:

Batch Comment: AW106 rerun and MAPEP20 for hg trm tjh

S	Type	Sample	R	A	Matrix	Group#	Project
1	ICV		0		LIQUID		
	Analytes Requested:	Mercury					
2	ICB		0		LIQUID		
	Analytes Requested:	Mercury					
3	LLS		0		LIQUID		
	Analytes Requested:	Mercury					
4	SAMPLE	S09T001751	1		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Mercury					
5	SAMPLE	S09T001761	1		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Mercury					
6	SAMPLE	S09T001772	1		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Mercury					
7	SAMPLE	S09T001782	1		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Mercury					
8	SAMPLE	S09T001794	1		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Mercury					
9	DUP	S09T001794	1		LIQUID		
	Analytes Requested:	Mercury					
10	SPK-PREDIG	S09T001794	1		LIQUID		
	Analytes Requested:	Mercury					
11	SPK-POST	S09T001794	1		LIQUID		
	Analytes Requested:	Mercury					
12	SAMPLE	S09T001806	1		LIQUID	20090163	AW106 EVAP3
	Analytes Requested:	Mercury					
13	CCV		0		LIQUID		
	Analytes Requested:	Mercury					
14	CCB		0		LIQUID		
	Analytes Requested:	Mercury					
15	SAMPLE	S09Q000019	0		LIQUID	20090197	MAPEP 20
	Analytes Requested:	Mercury					
16	DUP	S09Q000019	0		LIQUID		
	Analytes Requested:	Mercury					
17	SPK-PREDIG	S09Q000019	0		LIQUID		
	Analytes Requested:	Mercury					
18	CCV		0		LIQUID		
	Analytes Requested:	Mercury					
19	CCB		0		LIQUID		
	Analytes Requested:	Mercury					

Data Entry Comments:

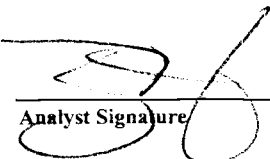
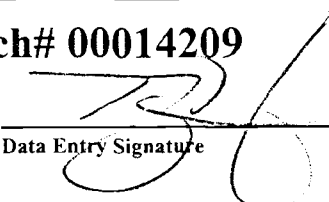
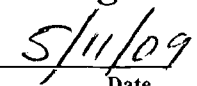
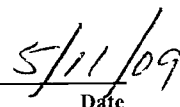
S = Batch Slot Number, R = Retest Number, A = Aliquot Code.

5/11/2009 9:34:11AM  
IncompleteBatchShort Version 2.7.22  
batchreports 2.7.25

Page: 2

LABCORE Data Entry Template for Batch# 00014209

**Final Page for Batch# 00014209**

	
Analyst Signature	Data Entry Signature
	
Date	Date

Data Entry Comments:

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S = Batch Slot Number, R = Retest Number, A = Aliquot Code.



Fax sent by 1-800-331-3331

Form 80-2220

05/08/2009 FRI 11:44 AM 11/11/09 11:44 AM 11/11/09 11:44 AM

## MERCURY PREPARATION and INSTRUMENTATION BENCH SHEET

Project: AW-106 + MAPEP 20

Analyst TRM Prep. Date 5/08/09 Run Date 5/08/09 Batch # 10014209  
 Tube Lot ID N/A \*Final Volume 50 mL (20mL for Liquid & Solids) Cal. Corr. Coeff. 0.99961  
 For Calibration & LLS<sup>(a)</sup> use 0.1 µg/mL "Calibration Std" Lot 118N11B Expires 6/01/09  
 For ICV, CCV, & RLS/RLS Dup<sup>(a)</sup> use 0.1 µg/mL "LCS0.1 Std" Lot 119N11B Expires 6/01/09  
 \*For LCS & LCS Dup<sup>(a)</sup> use 1.0 µg/mL "LCS1.0 Std" Lot N/A Expires N/A  
 Digestion Acids: Conc. H<sub>2</sub>SO<sub>4</sub> Lot 310211 Conc. HNO<sub>3</sub> Lot C40037 Conc. HCl Lot E16071  
 Dilution Acid: 2% HNO<sub>3</sub> used (20mL conc. HNO<sub>3</sub> to 1L with reagent water) or readymade by Standard Lab.  
 Balance IDs LE-BAL-023/044 Pipette IDs E0607325F, 339615 ☒ checked  
 SnCl<sub>2</sub> Lot B13T021 Mass (g) 20.036 (Every 20g SnCl<sub>2</sub>, 8.26 mL conc. HCl diluted to 200mL reagent water).  
 Instrument ID: [☒ LA-325-106 Rev. G-01] [☐ LA-325-107 Rev.     ] Highest calibration standard<sup>(b)</sup> abs: 0.242

	Standard/Sample ID.	mL or g	DF <sup>(c)</sup>		Standard/Sample ID.	mL or g	DF <sup>(c)</sup>
1	ICV	2.0		23			
2	ICB	NA		24			
3	LLS	0.2		25			
4	509T001751	2.0mL		26			
5	1761	*1.0mL		27			
6	1772	2.0mL		28			
7	1782	2.0mL		29			
8	1794	2.0mL		30			
9	1794 Dup	2.0mL		31			
10	→ 1794 Pre Spk	2.0mL + 1.0mL SPK		32			
11	1806	2.0mL		33			
12	CCV	2.0mL		34			
13	CCB	N/A		35			
14	5090000019	2.0mL		36			
15	19 Dup	2.0mL		37			
16	19 Pre Spk	2.0mL + 1.0mL SPK		38			
17	CCV			39			
18	CCB			40			
19				41			
20				42			
21				43			
22				44			

\*\*\*  
1794  
Post SPK  
after  
1794 pre SPK

Comments: \* Only had one mL of sample 509T001761

\*\*\* Spike with 1.0 mL of 119N11B

\*\*\* 1794 Post Spk = 9.5 mL of 1794 sample + .5 mL SPK of 119N11B

\* For IH Vapor Tube, LCS &amp; LCS Dup: 0.3mL of the "LCS1.0" to final volume of 50mL; If there are RLS&amp;RLS Dup: 0.5 mL of the "LCS0.1" std to final volume of 50mL.

(a) Calibration, ICV, CCV, LLS, Matrix predigest spike, and Post digest spike: Preparation in LA-325-106 or 325-107 for more details.

(b) If the "Instr. abs" for the highest calibration standard (20 µg/L) is &lt;0.13 abs, instrument troubleshooting maintenance is needed (See LA-325-106 or -107 in Appendices or contact the responsible scientist).

(c) DF: Dilution Factor, none means 1 and other than 1 if indicated.

## RPP-RPT-40709 Rev. 1

Fax Sent by : 0000000000

Date of Print :

05/08/2009 FRI 14:44 11A/RA NO 07571 0002

Seq. No.	1	AS Loc:	1	Date:	5/8/2009			
Sample ID:	Calib Blank							
Elem	SampleConc	StdConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg			0.0010	0.0033		0.0010		14:01:50
Auto-zero performed.								
Mean:			0.0010					
SD:								
%RSD:								
Seq. No.	2	AS Loc:	2	Date:	5/8/2009			
Sample ID:	1.00 ppb Hg 118N11A							
Elem	SampleConc	StdConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg			0.0128	0.0604		0.0138		14:02:50
Standard number 1 applied. [1.00]								
Correlation Coefficient: 1.0000			Slope: 0.0128					
Mean:			0.0128					
SD:								
%RSD:								
Seq. No.	3	AS Loc:	3	Date:	5/8/2009			
Sample ID:	5.00 ppb Hg 118N11A							
Elem	SampleConc	StdConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg			0.0636	0.2945		0.0646		14:03:50
Standard number 2 applied. [5.00]								
Correlation Coefficient: 1.0000			Slope: 0.0127					
An extra autosampler wash has been performed.								
Mean:			0.0636					
SD:								
%RSD:								
Seq. No.	4	AS Loc:	4	Date:	5/8/2009			
Sample ID:	10.0 ppb Hg 118N11A							
Elem	SampleConc	StdConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg			0.1252	0.5816		0.1261		14:05:12
Standard number 3 applied. [10.0]								
Correlation Coefficient: 1.0000			Slope: 0.0125					
An extra autosampler wash has been performed.								
Mean:			0.1252					
SD:								
%RSD:								
Seq. No.	5	AS Loc:	5	Date:	5/8/2009			
Sample ID:	15.0 ppb Hg 118N11A							
Elem	SampleConc	StdConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg			0.1886	0.8796		0.1896		14:06:36
Standard number 4 applied. [15.0]								
Correlation Coefficient: 1.0000			Slope: 0.0125					
An extra autosampler wash has been performed.								
Mean:			0.1886					
SD:								
%RSD:								
Seq. No.	6	AS Loc:	6	Date:	5/8/2009			
Sample ID:	20.0 ppb Hg 118N11A							
Elem	SampleConc	StdConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg			0.2418	1.1286		0.2428		14:08:01

05/08/2009 FRI 14:44 FAX/RY NO 07571 0002

Standard number 5 applied. [20.0]

Hg

Correlation Coefficient: 0.9996

Slope: 0.0122

Mean: 0.2418

SD:

%RSD:

Seq. No.	7	AS Loc:	1	Date:	5/ 8/2009			
Sample ID:	ICV							
Elem	SampleConc	StdConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	9.812µg/L	9.812µg/L	0.1214	0.5739		0.1223		14:13:32
An extra autosampler wash has been performed.								
Mean:	9.812µg/L	9.812µg/L	0.1214					
SD:	0.000µg/L	0.000µg/L						
%RSD:								

Seq. No.	8	AS Loc:	2	Date:	5/ 8/2009			
Sample ID:	ICB							
Elem	SampleConc	StdConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	-0.136µg/L	-0.136µg/L	-0.0001	0.0020		0.0009		14:14:53
Mean:	-0.136µg/L	-0.136µg/L	-0.0001					
SD:	0.000µg/L	0.000µg/L						
%RSD:								

Seq. No.	9	AS Loc:	3	Date:	5/ 8/2009			
Sample ID:	LLS							
Elem	SampleConc	StdConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.948µg/L	0.948µg/L	0.0131	0.0654		0.0141		14:15:53
Mean:	0.948µg/L	0.948µg/L	0.0131					
SD:	0.000µg/L	0.000µg/L						
%RSD:								

Seq. No.	10	AS Loc:	4	Date:	5/ 8/2009			
Sample ID:	S09T001751							
Elem	SampleConc	StdConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	-0.140µg/L	-0.140µg/L	-0.0002	0.0013		0.0008		14:16:53
Mean:	-0.140µg/L	-0.140µg/L	-0.0002					
SD:	0.000µg/L	0.000µg/L						
%RSD:								

Seq. No.	11	AS Loc:	5	Date:	5/ 8/2009			
Sample ID:	1761							
Elem	SampleConc	StdConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	-0.157µg/L	-0.157µg/L	-0.0004	0.0018		0.0006		14:17:53
Mean:	-0.157µg/L	-0.157µg/L	-0.0004					
SD:	0.000µg/L	0.000µg/L						
%RSD:								

Seq. No.	12	AS Loc:	6	Date:	5/ 8/2009			
Sample ID:	1772							
Elem	SampleConc	StdConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.684µg/L	0.684µg/L	0.0099	0.0520		0.0109		14:18:53
Mean:	0.684µg/L	0.684µg/L	0.0099					
SD:	0.000µg/L	0.000µg/L						
%RSD:								

Seq. No.	13	AS Loc:	7	Date:	5/ 8/2009			
Sample ID:	1782							
Elem	SampleConc	StdConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.551µg/L	0.551µg/L	0.0083	0.0429		0.0093		14:19:53
Mean:	0.551µg/L	0.551µg/L	0.0083					
SD:	0.000µg/L	0.000µg/L						
%RSD:								

Seq. No.	14	AS Loc:	8	Date:	5/ 8/2009			
Sample ID:	1794							
Elem	SampleConc	StdConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.476µg/L	0.476µg/L	0.0074	0.0358		0.0084		14:20:53
Mean:	0.476µg/L	0.476µg/L	0.0074					
SD:	0.000µg/L	0.000µg/L						
%RSD:								

Seq. No.	15	AS Loc:	9	Date:	5/ 8/2009			
Sample ID:	1794 DUP							
Elem	SampleConc	StdConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.458µg/L	0.458µg/L	0.0071	0.0384		0.0081		14:21:57
Mean:	0.458µg/L	0.458µg/L	0.0071					
SD:	0.000µg/L	0.000µg/L						
%RSD:								

Seq. No.	16	AS Loc:	10	Date:	5/ 8/2009			
Sample ID:	1794 PRE DIG SPK							
Elem	SampleConc	StdConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	3.296µg/L	3.296µg/L	0.0418	0.2260		0.0428		14:22:56
An extra autosampler wash has been performed.								
An extra autosampler wash has been performed.								
Mean:	3.296	3.296	0.0418					
SD:	0.000	0.000						
%RSD:								

Seq. No.	17	AS Loc:	10	Date:	5/ 8/2009			
Sample ID:	1794 Post DIG SPK							
Elem	SampleConc	StdConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	5.418µg/L	5.418µg/L	0.0677	0.3325		0.0687		14:30:24
An extra autosampler wash has been performed.								
Mean:	5.418µg/L	5.418µg/L	0.0677					
SD:	0.000µg/L	0.000µg/L						
%RSD:								

Seq. No.	18	AS Loc:	11	Date:	5/ 8/2009			
Sample ID:	1806							
Elem	SampleConc	StdConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.482µg/L	0.482µg/L	0.0074	0.0383		0.0084		14:31:45
Mean:	0.482µg/L	0.482µg/L	0.0074					
SD:	0.000µg/L	0.000µg/L						
%RSD:								

Fax sent by 1-800-310-1331

Seq. No.	19	AS Loc:	12	Date:	5/ 8/2009			
Sample ID:	CCV							
Elem	SampleConc	StdConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	10.18µg/L	10.18µg/L	0.1259	0.6060		0.1269		14:32:44
An extra autosampler wash has been performed.								
Mean:	10.18µg/L	10.18µg/L	0.1259					
SD:	0.000µg/L	0.000µg/L						
%RSD:								
Seq. No.	20	AS Loc:	13	Date:	5/ 8/2009			
Sample ID:	CCB							
Elem	SampleConc	StdConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	-0.151µg/L	-0.151µg/L	-0.0003	0.0026		0.0007		14:34:07
Mean:	-0.151µg/L	-0.151µg/L	-0.0003					
SD:	0.000µg/L	0.000µg/L						
%RSD:								
Seq. No.	21	AS Loc:	14	Date:	5/ 8/2009			
Sample ID:	S09Q000019							
Elem	SampleConc	StdConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.424µg/L	0.424µg/L	0.0067	0.0336		0.0077		14:35:06
Mean:	0.424µg/L	0.424µg/L	0.0067					
SD:	0.000µg/L	0.000µg/L						
%RSD:								
Seq. No.	22	AS Loc:	15	Date:	5/ 8/2009			
Sample ID:	19 DUP							
Elem	SampleConc	StdConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.427µg/L	0.427µg/L	0.0068	0.0358		0.0078		14:36:07
Mean:	0.427µg/L	0.427µg/L	0.0068					
SD:	0.000µg/L	0.000µg/L						
%RSD:								
Seq. No.	23	AS Loc:	16	Date:	5/ 8/2009			
Sample ID:	19 PRE DIG SPK							
Elem	SampleConc	StdConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	5.911µg/L	5.911µg/L	0.0737	0.3561		0.0747		14:37:07
An extra autosampler wash has been performed.								
Mean:	5.911µg/L	5.911µg/L	0.0737					
SD:	0.000µg/L	0.000µg/L						
%RSD:								
Seq. No.	24	AS Loc:	17	Date:	5/ 8/2009			
Sample ID:	CCV							
Elem	SampleConc	StdConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	9.967µg/L	9.967µg/L	0.1233	0.5899		0.1242		14:38:32
An extra autosampler wash has been performed.								
Mean:	9.967µg/L	9.967µg/L	0.1233					
SD:	0.000µg/L	0.000µg/L						
%RSD:								

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Fax sent by 1 800 313 1331

Seq. No.	25	AS Loc:	18	Date:	5/ 8/2009			
Sample ID:	CCB							
Elem	SampleConc	StdConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	-0.155µg/L	-0.155µg/L	-0.0003	0.0010		0.0007		14:39:59
Mean:	-0.155µg/L	-0.155µg/L	-0.0003					
SD:	0.000µg/L	0.000µg/L						
%RSD:								

Worklist/Project: 13337/AW106 EUAP3 20090162 Check Procedure Used: ☒ LA-533-101 (Cat) ☐ LA-533-107 (846 Anions) ☐ LA-533-115 (IC6 Anions)  
 Run Date: 3/10/09 Instrument ID: IC 5 Prep Batches Analyzed (Worklist #): 13335 Prep Method: LA544-112

Review Items	Yes	No	N/A	Comments/Samples Affected
<b>A. Calibration/Instrument Run QC</b>				
1. Instrument calibrated per procedure and at specified levels?	<input checked="" type="checkbox"/>			
2. If the Calibration date is different, has the change been recorded with the calibration record?			<input checked="" type="checkbox"/>	
3. Calibration curve correlation coefficient $\geq 0.995$ linear or $\geq 0.999$ quadratic?	<input checked="" type="checkbox"/>			
4. ICV/CCV analyzed at appropriate frequency and within control limits (Recovery: 90-110%)?	<input checked="" type="checkbox"/>			
5. ICB/CCB analyzed at required frequency and < EQL (or RL) or <5% of the lowest sample result?	<input checked="" type="checkbox"/>			
6. ILS run and within control limits? For IH, recovery is mandatory to verify RL SW-846 9056A requirement <input checked="" type="checkbox"/> 75-125% <input type="checkbox"/> 50-150%	<input checked="" type="checkbox"/>			
<b>B. Sample Results</b>				
1. Were samples with concentrations > linear range for any analyte diluted and reanalyzed?			<input checked="" type="checkbox"/>	
2. Are all reported results bracketed by in-control QC?	<input checked="" type="checkbox"/>			
3. Are there 10 or fewer samples runs between bracketed, in-control QC?	<input checked="" type="checkbox"/>			
<b>C. Preparation/Matrix QC</b>				
1. LCS/Prep Std prepared per prep batch and within control limits? Recovery: <input checked="" type="checkbox"/> 80-120% or <input type="checkbox"/> Statistical	<input checked="" type="checkbox"/>			
2. LCS Dup (Prep Std Dup) prepared per prep batch, if required, and within control limits? Recovery: <input type="checkbox"/> 80-120% or <input type="checkbox"/> Statistical ; RPD: <input type="checkbox"/> $\leq 20\%$ or <input type="checkbox"/> Statistical			<input checked="" type="checkbox"/>	
3. IH RLS run (when required) and within mandatory control limits (Recovery: 75-125%)?			<input checked="" type="checkbox"/>	
4. Method/Media Blank prepared per prep batch and < EQL (or RL) or <5% of the lowest sample result?	<input checked="" type="checkbox"/>			
5. Duplicate or MS Duplicate run at required frequency and within control limits? %RPD: <input checked="" type="checkbox"/> $\leq 20\%$ or <input type="checkbox"/> Client-specified	<input checked="" type="checkbox"/>			
6. MS run at required frequency and within control limit? Recovery: <input checked="" type="checkbox"/> 75-125% or <input type="checkbox"/> Client-specified	<input checked="" type="checkbox"/>			
<b>D. Other</b>				
1. Are all problems and nonconformance issues documented appropriately?	<input checked="" type="checkbox"/>			
2. Are current IDL/MDL/EQL/RL/Calibration data on file?	<input checked="" type="checkbox"/>			
3. Calculations/transcriptions checked for errors?	<input checked="" type="checkbox"/>			
4. Are all raw data complete and verified in Omni LIMS?	<input checked="" type="checkbox"/>			
5. All client/project specific requirements met (e.g., MDL, Holding time, etc.)?	<input checked="" type="checkbox"/>			
6. Date/time of analysis verified as correct?	<input checked="" type="checkbox"/>			
7. All Benchsheet(s)/Worklist(s) properly completed and included, as required?	<input checked="" type="checkbox"/>			
8. IH Only: Media Blank subtracted from Sample results?			<input checked="" type="checkbox"/>	

1<sup>st</sup> Data Reviewer KBDate: 3/17/092<sup>nd</sup> Data Reviewer: CEmerDate: 03/17/09

## LABCORE Completed Batch Report for Batch# 00013337

**Analyst:** Thorndike, Kathy

**Book#:** 115N28A

**Instrument:** IC-5 (IC-NH4)

**Method:** IC - NH4, LA-533-101 Rev/Mod O-0

**Specification:** AW106 EVAP3

**Prep Batch:** 00013335

**Batch Comment:** AW103 EVAP3 NH4 DISTILLATION INSTRUMENT RUN

Seq Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
Sample Sequence 1															
1 ICV	S0903100037		0	0	Ammonium	LIQUID	2.554458	2.5506E+00			0.012	ug/mL	99.851	% Recovery	
Sample Sequence 2															
2 ICB	S0903100038		0	0	Ammonium	LIQUID		<1.2000E-02			0.012	ug/mL			
Sample Sequence 3															
3 LLS	S0903100039		0	0	Ammonium	LIQUID	.1011876	7.9690E-02			0.012	ug/mL	78.755	% Recovery	
Sample Sequence 4															
4 BLNK-PREP	S0903100019		0	0	S Ammonium	LIQUID		1.7462E+00			0.12	ug/mL			
Sample Sequence 5															
5 LCS	S0903100018		0	0	S Ammonium	LIQUID	258	2.4967E+02			0.6	ug/mL	96.771	% Recovery	
Sample Sequence 6															
6 SAMPLE	S09T001755		0	0	S Ammonium	LIQUID	N/A	<1.2000E-01			0.12	ug/mL			U
Sample Sequence 7															
7 SAMPLE	S09T001766		0	0	S Ammonium	LIQUID	N/A	<1.2000E-01			0.12	ug/mL			U
Sample Sequence 8															
8 SAMPLE	S09T001787		0	0	S Ammonium	LIQUID	N/A	8.3449E+01			0.12	ug/mL			
Sample Sequence 9															
9 SAMPLE	S09T001799		0	0	S Ammonium	LIQUID	N/A	8.4648E+01			0.12	ug/mL			
Sample Sequence 10															
10 DUP	S0903100020	S09T001799	0	0	S Ammonium	LIQUID	8.4648E+01	8.3285E+01			0.12	ug/mL	1.6234	% RPD	
Sample Sequence 11															
11 SPK-PREDIG	S0903100021	S09T001799	0	0	S Ammonium	LIQUID	25.8	1.0603E+02			0.12	ug/mL	82.866	% Recovery	
Sample Sequence 12															
12 SPK-IC	S0903100041	S09T001799	0	0	Ammonium	LIQUID	258	1.1039E+01			0.012	ug/mL	99.763	% Recovery	
Sample Sequence 13															
13 SAMPLE	S09T001811		0	0	S Ammonium	LIQUID	N/A	8.4406E+01			0.12	ug/mL			
Sample Sequence 14															
14 CCV	S0903100043		0	0	Ammonium	LIQUID	2.554458	2.5582E+00			0.012	ug/mL	100.14	% Recovery	
Sample Sequence 15															
15 CCB	S0903100044		0	0	Ammonium	LIQUID		<1.2000E-02			0.012	ug/mL			

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Units shown for QC (BLK/BKG) may not reflect the actual units.



## LABCORE Completed Batch Report for Batch# 00013337

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### Comments Section:

Comments for sample: S0903100037, test: IC - NH4

r:\PKNTTR~1\090310h3\09031000\_003.DXD

Comments for sample: S0903100020, test: IC - NH4

r:\PKNTTR~1\090310h3\09031000\_012.DXD

Comments for sample: S0903100021, test: IC - NH4

r:\PKNTTR~1\090310h3\09031000\_013.DXD

Comments for sample: S0903100041, test: IC - NH4

r:\PKNTTR~1\090310h3\09031000\_014.DXD

Comments for sample: S09T001811, test: IC - NH4

r:\PKNTTR~1\090310h3\09031000\_015.DXD

Comments for sample: S0903100043, test: IC - NH4

r:\PKNTTR~1\090310h3\09031000\_016.DXD

Comments for sample: S0903100044, test: IC - NH4

r:\PKNTTR~1\090310h3\09031000\_017.DXD

Comments for sample: S0903100038, test: IC - NH4

r:\PKNTTR~1\090310h3\09031000\_004.DXD

Comments for sample: S0903100039, test: IC - NH4

r:\PKNTTR~1\090310h3\09031000\_005.DXD

Comments for sample: S0903100019, test: IC - NH4

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Comments for sample: S0903100018, test: IC - NH4

r:\PKNTTR~1\090310h3\09031000\_007.DXD

Comments for sample: S09T001755, test: IC - NH4

r:\PKNTTR~1\090310h3\09031000\_008.DXD

Comments for sample: S09T001766, test: IC - NH4

r:\PKNTTR~1\090310h3\09031000\_009.DXD

Comments for sample: S09T001787, test: IC - NH4

r:\PKNTTR~1\090310h3\09031000\_010.DXD

Comments for sample: S09T001799, test: IC - NH4

r:\PKNTTR~1\090310h3\09031000\_011.DXD

Data Flagger Status:

Flagging Completed


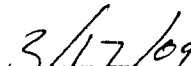
Units shown for QC (BLK/BKG) may not reflect the actual units.

RPP-RPT-40709 Rev. 1

## LABCORE Completed Batch Report for Batch# 00013337

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### Final Page for Batch# 00013337

   
\_\_\_\_\_  
Reviewer Signature Date

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## LABCORE Completed Batch Report for Batch# 00013337

Seq	Sample#	QC Type	Assoc. Sample	Sample Group	Customer Id	Specification
1	S0903100037	ICV				
2	S0903100038	ICB				
3	S0903100039	LLS				
4	S0903100019	BLNK-PREP				
5	S0903100018	LCS				
6	S09T001755	SAMPLE		20090162	6AW-08-01FB1	AW106 EVAP3
7	S09T001766	SAMPLE		20090162	6AW-08-01FB2	AW106 EVAP3
8	S09T001787	SAMPLE		20090162	6AW-08-02B	AW106 EVAP3
9	S09T001799	SAMPLE		20090162	6AW-08-03B	AW106 EVAP3
10	S0903100020	DUP	S09T001799			
11	S0903100021	SPK-PREDIG	S09T001799			
12	S0903100041	SPK-IC	S09T001799			
13	S09T001811	SAMPLE		20090163	6AW-08-04B	AW106 EVAP3
14	S0903100043	CCV				
15	S0903100044	CCB				

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3/10/2009 2:43:08PM

IncompleteBatchShort Version 2.7.22

batchreports 2.7.25

Page: 1

## LABCORE Data Entry Template for Batch# 00013337

Analyst:

Standard ID / Book#:

See Bench Sheet

Instrument:

Method: IC-NH4, WA-533-101 Rev/Mod C-0

Prep Batch: 00013335

Batch Comment: AW103 EVAP3 NH4 DISTILATION INSTRUMENT RUN

S	Type	Sample	R	A	Matrix	Group#	Project
1	ICV		0		LIQUID		
	Analytes Requested:	Ammonium					
2	ICB		0		LIQUID		
	Analytes Requested:	Ammonium					
3	LLS		0		LIQUID		
	Analytes Requested:	Ammonium					
4	BLNK-PREP		0	S	LIQUID		
	Analytes Requested:	Ammonium					
5	LCS		0	S	LIQUID		
	Analytes Requested:	Ammonium					
6	SAMPLE	S09T001755	0	S	LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Ammonium					
7	SAMPLE	S09T001766	0	S	LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Ammonium					
8	SAMPLE	S09T001787	0	S	LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Ammonium					
9	SAMPLE	S09T001799	0	S	LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Ammonium					
10	DUP	S09T001799	0	S	LIQUID		
	Analytes Requested:	Ammonium					
11	SPK-PREDIG	S09T001799	0	S	LIQUID		
	Analytes Requested:	Ammonium					
12	SPK-IC	S09T001799	0		LIQUID		
	Analytes Requested:	Ammonium					
13	SAMPLE	S09T001811	0	S	LIQUID	20090163	AW106 EVAP3
	Analytes Requested:	Ammonium					
14	CCV		0		LIQUID		
	Analytes Requested:	Ammonium					
15	CCB		0		LIQUID		
	Analytes Requested:	Ammonium					

Final Page for Batch# 00013337

K5 Phomdila 3-10-09  
 Analyst Signature Date

K5 Phomdila 3-16-09  
 Data Entry Signature Date

Data Entry Comments:

S = Batch Slot Number, R = Retest Number, A = Aliquot Code.

## Appendix B. IC Instrument Run Bench Sheet

Project # AW106 Batch # 13337Analyst KJ THORNDIKE Date 03/10/09

Procedure/Method	Calibration Date	Eluent Type	Eluent ID <sup>(1)</sup>	Expiration Date
[ X ] LA-533-101-ICCAT	03/09/09	H <sub>2</sub> SO <sub>4</sub>	090310-7	04/10/09
[ ] LA-533-107-IC846		Na <sub>2</sub> CO <sub>3</sub>		
		NaHCO <sub>3</sub>		
		Na <sub>2</sub> CO <sub>3</sub> /NaHCO <sub>3</sub>		
[ ] LA-533-115-IC6		EG40		

IC Note Book # HNF-N-577 1 Page(s) 26

Standard Type	Std ID <sup>(1)</sup>	Expiration Date
Calibration	NA	
CCV	115N28A	03/13/09
ICV	NA	

Standard Type	Std ID <sup>(1)</sup>	Expiration Date
LLS	115N28A	03/13/09
Spike <sup>(2)</sup>	115N28A	03/13/09
Pipette ID	D61799,E0607304F,G10779	

#	Sample Number/Std Type	Dilution Factor (DF)	Dilution Description <sup>(2)</sup>
1	CCV	101	0.100ML-10.0ML
2	CCB	1	
3	LLS	2550	0.200ML-9.8ML-0.200ML-10.0ML
4	PREP BLANK	1	
5	PREP STD	1	
6	S09T001755	1	
7	S09T001766	1	
8	S09T001787	1	
9	S09T001799	1	
10	S09T001799 DUP	1	
11	S09T001799 SPK	1	
12	S09T001799 POST SPK	1.01	0.025ML-2.5ML SAMPLE
13	S09T001811	1	
14	CCV	101	0.100ML-10.0ML
15	CCB	1	
16			
17			
18			

Use Type	Document No.	Rev/Mod	Released For Use Date	Page
Reference	LA-533-101	O-0	05/23/2007	33 of 41

LABCORE Data Entry Template for Batch# 00013335

Analyst: Thorndike, Kathy

Standard ID / Book#:

Instrument:

Method: NH4 DIST, LA-544-112 Rev/Mod D-0

Prep Batch:

Batch Comment: AW106 EVAP3 NH4 DISTILLATION

S	Type	Sample	R	A	Matrix	Group#	Project
1	LCS			S	LIQUID		
2	BLNK-PREP			S	LIQUID		
3	SAMPLE	S09T001755		S	LIQUID	20090162	AW106 EVAP3
4	SAMPLE	S09T001766		S	LIQUID	20090162	AW106 EVAP3
5	SAMPLE	S09T001787		S	LIQUID	20090162	AW106 EVAP3
6	SAMPLE	S09T001799		S	LIQUID	20090162	AW106 EVAP3
7	DUP	S09T001799		S	LIQUID		
8	SPK-PREDIG	S09T001799		S	LIQUID		
9	SAMPLE	S09T001811		S	LIQUID	20090163	AW106 EVAP3

Final Page for Batch# 00013335

KS Thorndike 3-10-09  
Analyst Signature Date

KS Thorndike 3-10-09  
Data Entry Signature Date

Data Entry Comments:

S = Batch Slot Number, R = Retest Number, A = Aliquot Code.

— — — — — 25 — — — — —

BATCH#

Standard	Book # or Vendor Cat #	Expiration Date
Predist/LCS Standard	115N28A	03/13/09
Post Spike Standard	115N28A	03/13/09
Pipette Id/Date	D61799, E0607304F,G10779	

Use Type	Document No.	Rev/Mod	Released For Use Date	Page
Reference	LA-544-112	D-0	10/18/2007	21 of 23

## Sample Analysis Report

Sample Name : CCV 101 115N28A

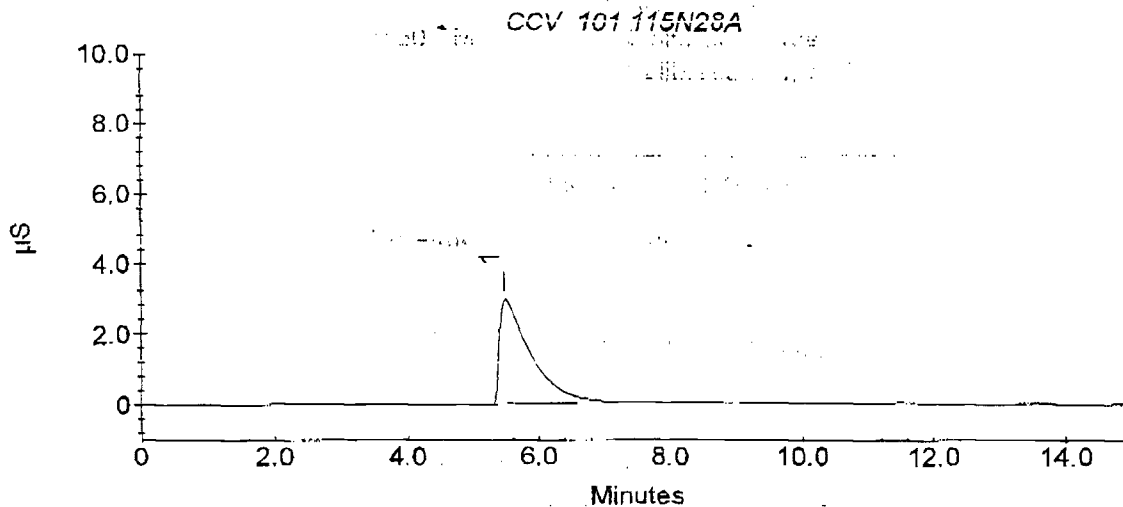
Data File Name : C:\PEAKNET\DATA\09031000\_003.DXD

Method File Name : c:\peaknet\method\inh4green.met System Name : IC\_5  
Date Time Collected : 3/10/09 2:10:50 PM Calibration Date : 3/9/09 2:15:32 PM  
System Operator : KJT Calibration Type : EXTERNAL  
Dilution Factor : 1.00

## Peak Information : All Peaks

Peak #	Component	Retention Time	Amount (µg/mL)	Peak Area	Peak Height
1	Ammonium	5.46	2.55065	986465	29393

99.8%



PeakNet 5.21

Page 1 of 1

Current Date : 3/10/0  
Current Time : 14:25:51



## Sample Analysis Report

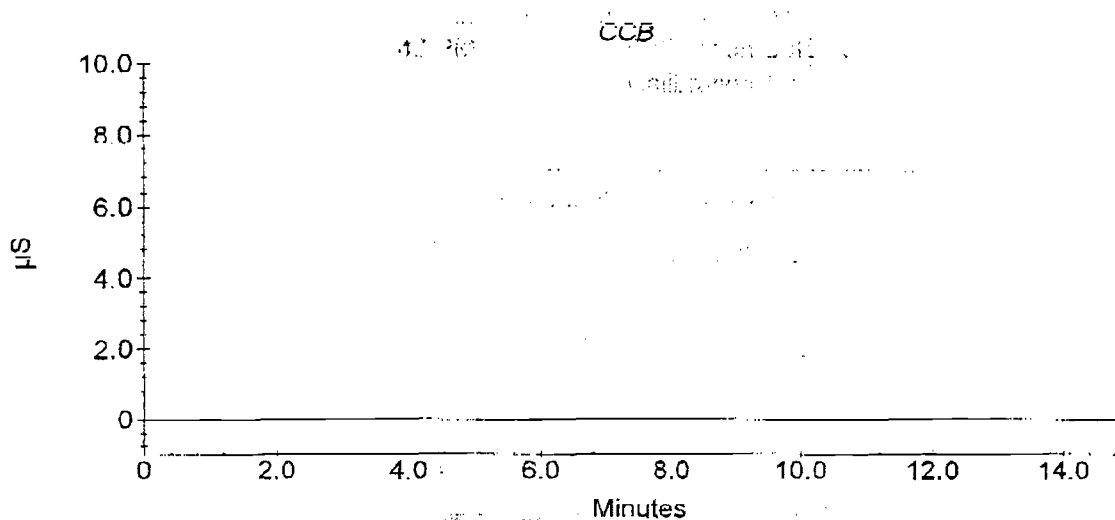
Sample Name : CCB

Data File Name : C:\PEAKNET\DATA\09031000\_004.DXD

Method File Name : c:\peaknet\method\mh4green.met System Name : IC\_5  
Date Time Collected : 3/10/09 2:27:49 PM Calibration Date : 3/9/09 2:15:32 PM  
System Operator : KJT Calibration Type : EXTERNAL  
Dilution Factor : 1.00

## Peak Information : All Peaks

Peak #	Component	Retention Time	Amount (µg/mL)	Peak Area	Peak Height
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## Sample Analysis Report

Sample Name : LLS 2550 115N28A

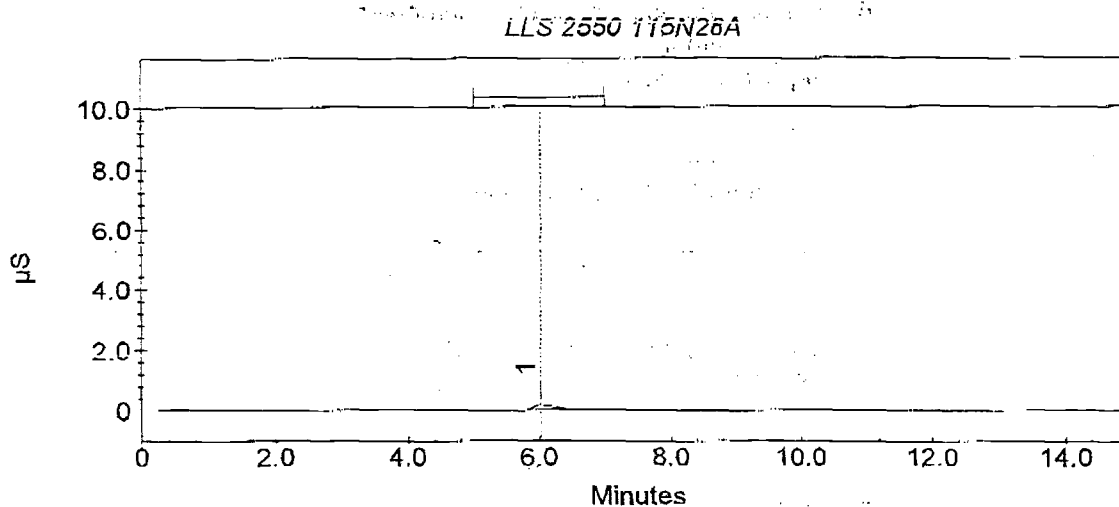
Data File Name : C:\PEAKNET\DATA\09031000\_005.DXD

Method File Name : c:\peaknet\method\mh4green.met System Name : IC\_5  
Date Time Collected : 3/10/09 2:44:47 PM Calibration Date : 3/11/09 8:22:15 AM  
System Operator : KJT Calibration Type : EXTERNAL  
Dilution Factor : 1.00

## Peak Information : All Peaks

Peak #	Component	Retention Time	Amount (µg/mL)	Peak Area	Peak Height
1	Ammonium	6.02	0.07969	36459	1618

79.4%



## Sample Analysis Report

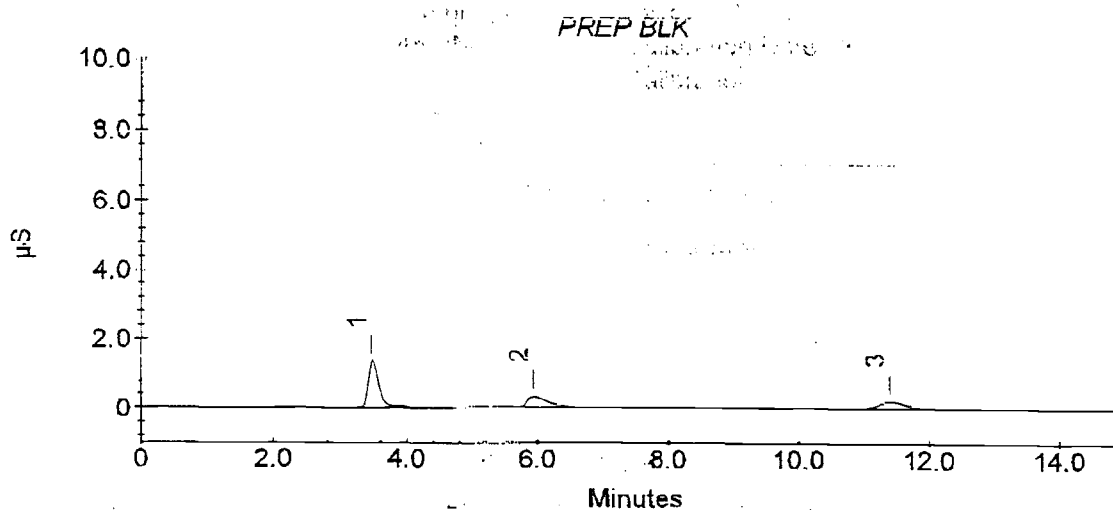
Sample Name : PREP BLK

Data File Name : C:\PEAKNET\DATA\09031000\_006.DXD

Method File Name : c:\peaknet\method\nh4green.met System Name : IC\_5  
Date Time Collected : 3/10/09 3:01:45 PM Calibration Date : 3/9/09 2:15:32 PM  
System Operator : KJT Calibration Type : EXTERNAL  
Dilution Factor : 1.00

## Peak Information : All Peaks

Peak #	Component	Retention Time	Amount (µg/mL)	Peak Area	Peak Height
1	Unknown 1	3.47	0.00000	145687	12916
2	Ammonium	5.94	0.17462	79240	3234
3	Unknown 2	11.40	0.00000	61127	2042



: PeakNet 5.21

Page 1 of 1

Current Date : 3/10/09  
Current Time : 15:16:47

## Sample Analysis Report

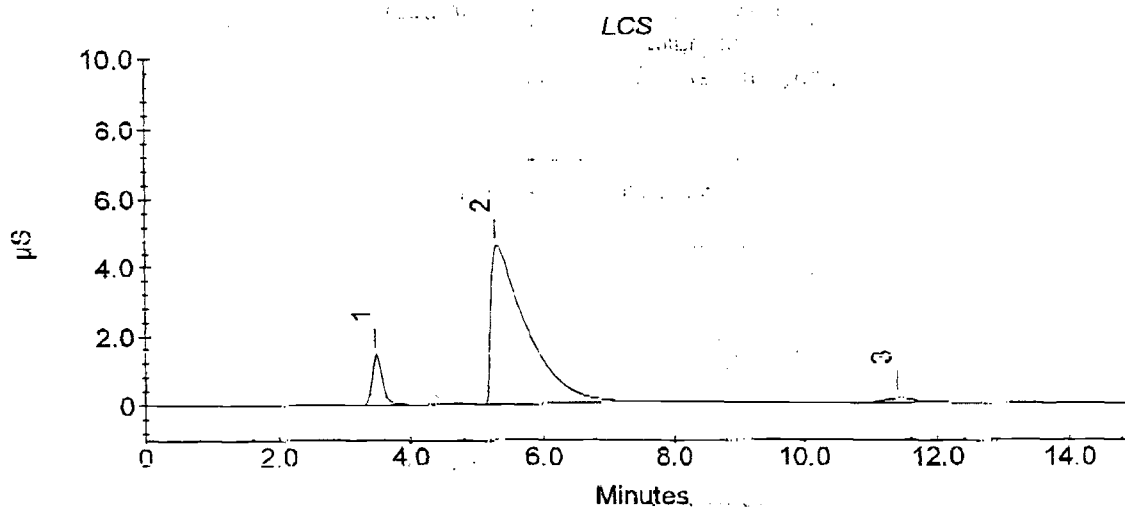
Sample Name : LCS

Data File Name : C:\PEAKNET\DATA\09031000\_007.DXD

Method File Name : c:\peaknet\method\mh4green.met System Name : IC\_5  
Date Time Collected : 3/10/09 3:18:44 PM Calibration Date : 3/9/09 2:15:32 PM  
System Operator : KJT Calibration Type : EXTERNAL  
Dilution Factor : 1.00

## Peak Information : All Peaks

Peak #	Component	Retention Time	Amount (µg/mL)	Peak Area	Peak Height
1	Unknown 1	3.47	0.00000	153451	14021
2	Ammonium	5.29	4.99340	1724125	45967
3	Unknown 2	11.40	0.00000	36061	1205



; PeakNet 5.21

Page 1 of 1

Current Date : 3/10/09  
Current Time : 15:33:46

## Sample Analysis Report

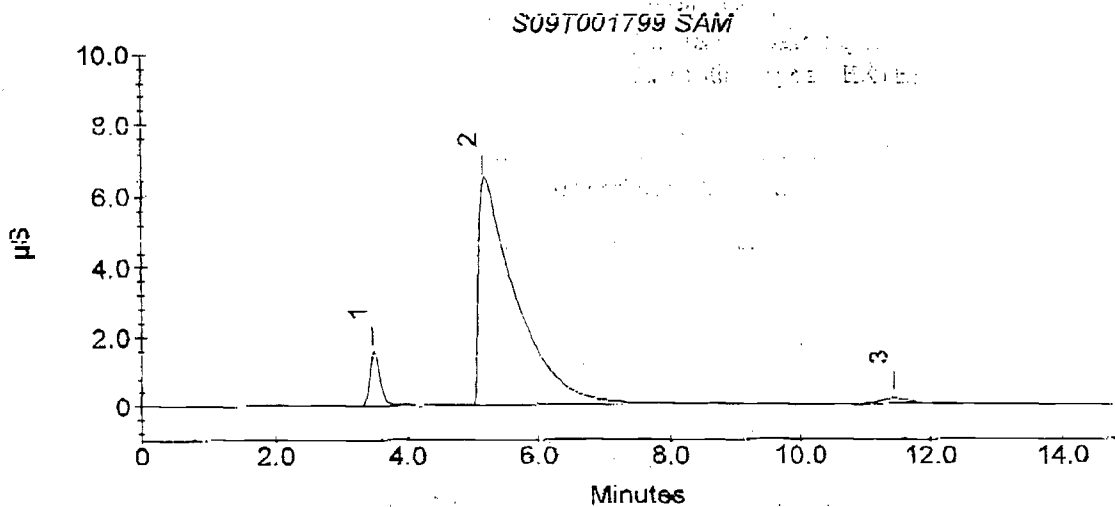
Sample Name : S09T001799 SAM

Data File Name : C:\PEAKNET\DATA\09031000\_011.DXD

Method File Name : c:\peaknet\method\mh4green.met System Name : IC\_5  
Date Time Collected : 3/10/09 4:26:41 PM Calibration Date : 3/9/09 2:15:32 PM  
System Operator : KJT Calibration Type : EXTERNAL  
Dilution Factor : 1.00

## Peak Information : All Peaks

Peak #	Component	Retention Time	Amount (µg/mL)	Peak Area	Peak Height
1	Unknown 1	3.47	0.00000	169682	14988
2	Ammonium	5.16	8.46475	2594476	63585
3	Unknown 2	11.44	0.00000	47029	1587



PeakNet 5.21

Page 1 of 1

Current Date : 3/10/0  
Current Time : 16:41:42

## Sample Analysis Report

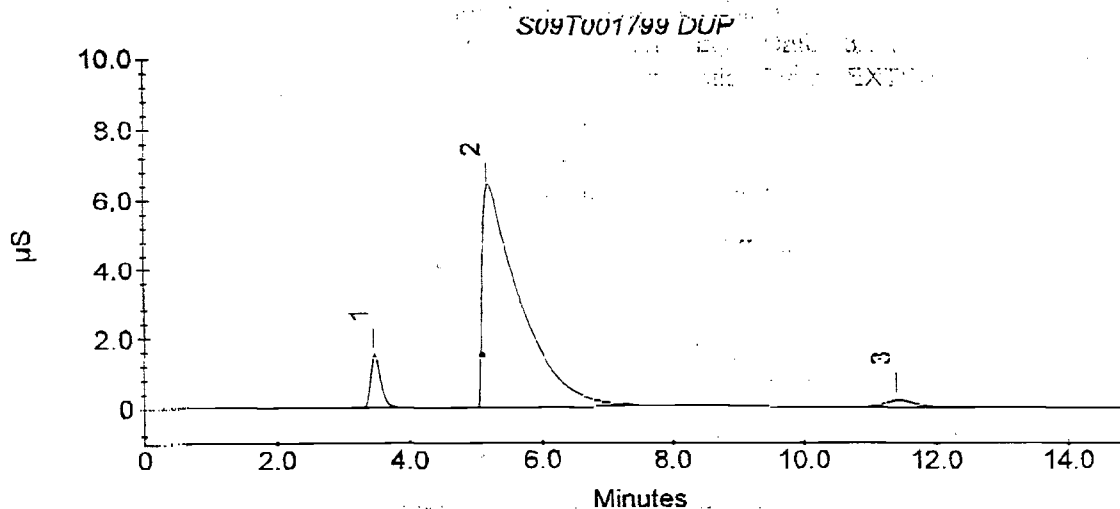
Sample Name : S09T001799 DUP

Data File Name : C:\PEAKNET\DATA\09031000\_012.DXD

Method File Name : c:\peaknet\method\nh4green.met System Name : IC\_5  
Date Time Collected : 3/10/09 4:43:40 PM Calibration Date : 3/9/09 2:15:32 PM  
System Operator : KJT Calibration Type : EXTERNAL  
Dilution Factor : 1.00

## Peak Information : All Peaks

Peak #	Component	Retention Time	Amount (µg/mL)	Peak Area	Peak Height
1	Unknown 1	3.47	0.00000	167571	14766
2	Ammonium	5.16	8.32849	2563090	62458
3	Unknown 2	11.40	0.00000	58535	1921



: PeakNet 5.21

Page 1 of 1

Current Date : 3/10/0  
Current Time : 16:58:40

## Sample Analysis Report

Sample Name : S09T001755

Data File Name : C:\PEAKNET\DATA\09031000\_008.DXD

Method File Name : c:\peaknet\method\nh4green.met System Name : IC\_5

Date Time Collected : 3/10/09 3:35:44 PM

Calibration Date : 3/9/09 2:15:32 PM

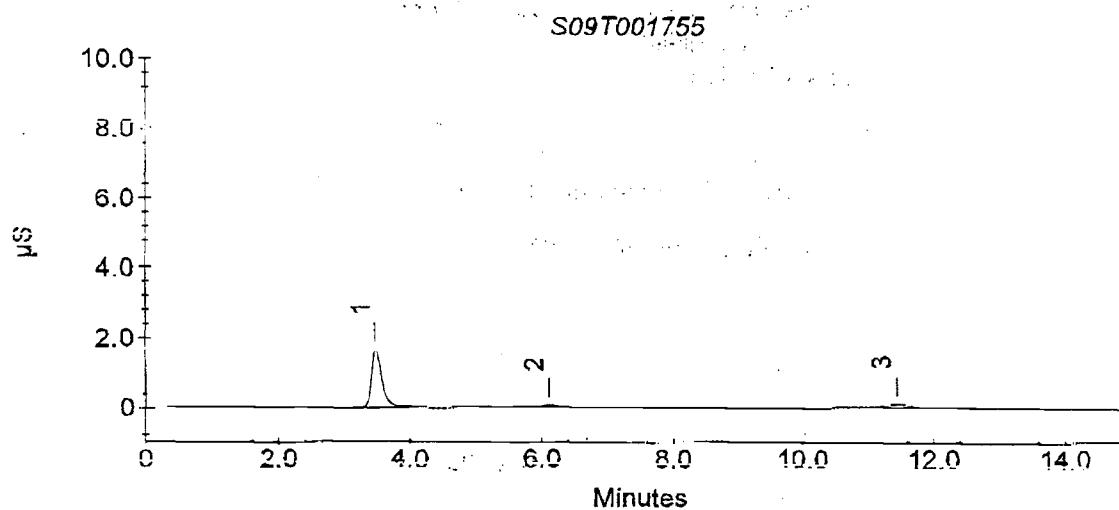
System Operator : KJT

Calibration Type : EXTERNAL

Dilution Factor : 1.00

## Peak Information : All Peaks

Peak #	Component	Retention Time	Amount (µg/mL)	Peak Area	Peak Height
1	Unknown 1	3.47	0.00000	182727	16295
2	Unknown 2	6.11	0.00000	9774	467
3	Unknown 3	11.44	0.00000	32942	1126



PeakNet 5.21

Page 1 of 1

Current Date : 3/10/09  
Current Time : 15:50:46

## Sample Analysis Report

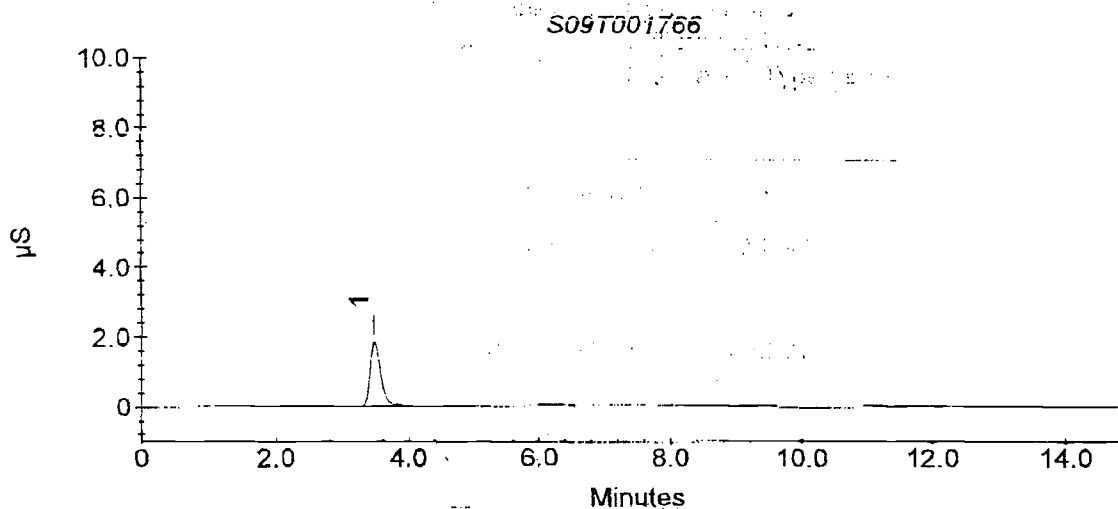
Sample Name : S09T001766

Data File Name : C:\PEAKNET\DATA\09031000\_009.DXD

Method File Name : c:\peaknet\method\mh4green.met System Name : IC\_5  
Date Time Collected : 3/10/09 3:52:43 PM Calibration Date : 3/9/09 2:15:32 PM  
System Operator : KJT Calibration Type : EXTERNAL  
Dilution Factor : 1.00

## Peak Information : All Peaks

Peak #	Component	Retention Time	Amount (µg/mL)	Peak Area	Peak Height
1	Unknown 1	3.47	0.00000	197665	17945





## Sample Analysis Report

Sample Name : S09T001787

Data File Name : C:\PEAKNET\DATA\09031000\_010.DXD

Method File Name : c:\peaknet\method\nh4green.met System Name : IC\_5

Date Time Collected : 3/10/09 4:09:42 PM

Calibration Date : 3/9/09 2:15:32 PM

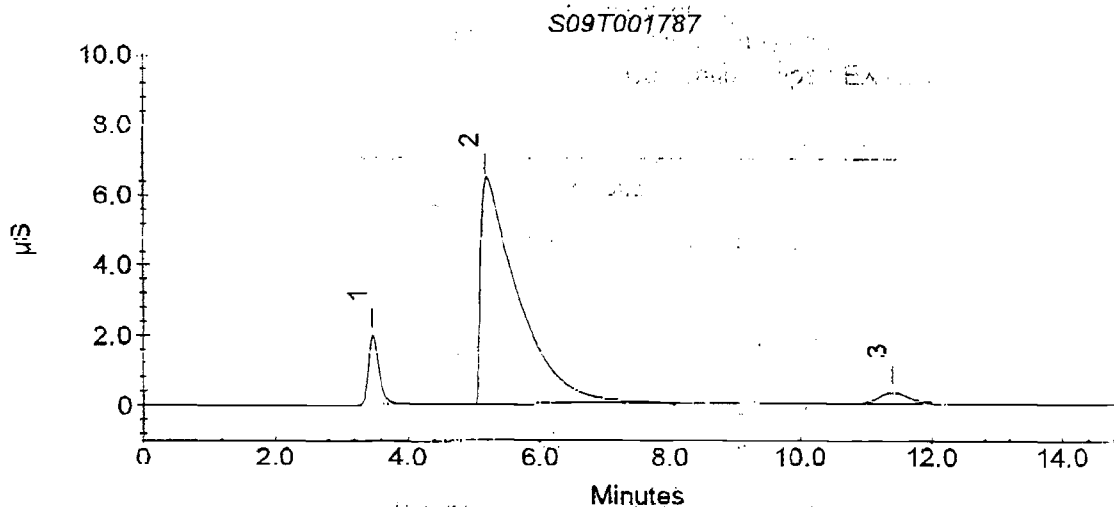
System Operator : KJT

Calibration Type : EXTERNAL

Dilution Factor : 1.00

## Peak Information : All Peaks

Peak #	Component	Retention Time	Amount (µg/mL)	Peak Area	Peak Height
1	Unknown 1	3.47	0.00000	213377	19303
2	Ammonium	5.16	8.34490	2566880	63256
3	Unknown 2	11.40	0.00000	95577	3135



PeakNet 5.21

Page 1 of 1

Current Date : 3/10/0  
Current Time : 16:24:43

## Sample Analysis Report

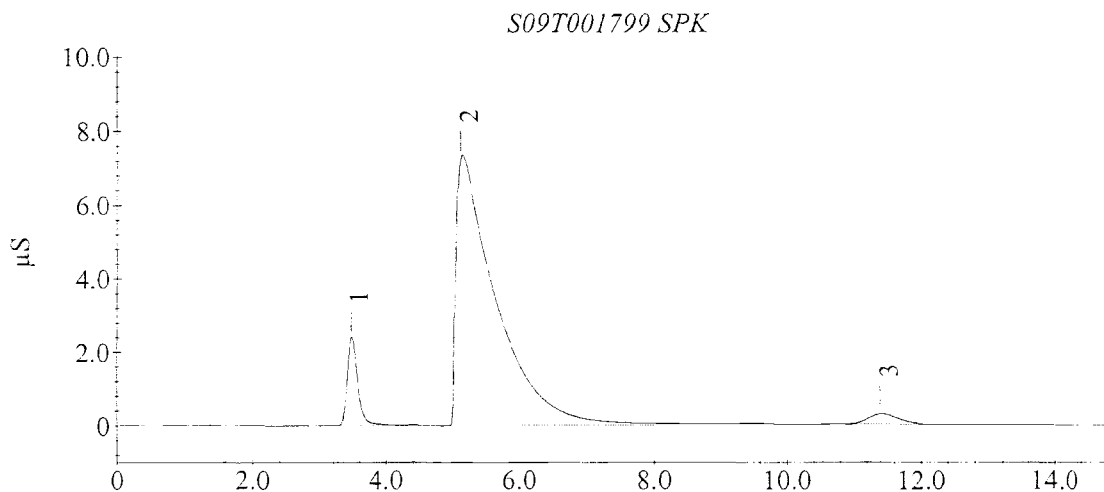
Sample Name : S09T001799 SPK

Data File Name : M:\PKNT TRANSFER FILES\090310H3\09031000\_013.DXD

Method File Name : c:\peaknet\method\mh4green.met System Name : IC\_5  
Date Time Collected : 3/10/2009 6:00:38 PM Calibration Date : 3/9/2009 3:15:32 PM  
System Operator : KJT Calibration Type : EXTERNAL  
Dilution Factor : 1.00

## Peak Information : All Peaks

Peak #	Component	Retention Time	Amount (µg/mL)	Peak Area	Peak Height
1	Unknown 1	3.47	0.00000	262660	23174
2	Ammonium	5.11	10.60273	3064098	72241
3	Unknown 2	11.40	0.00000	85580	2810



## Sample Analysis Report

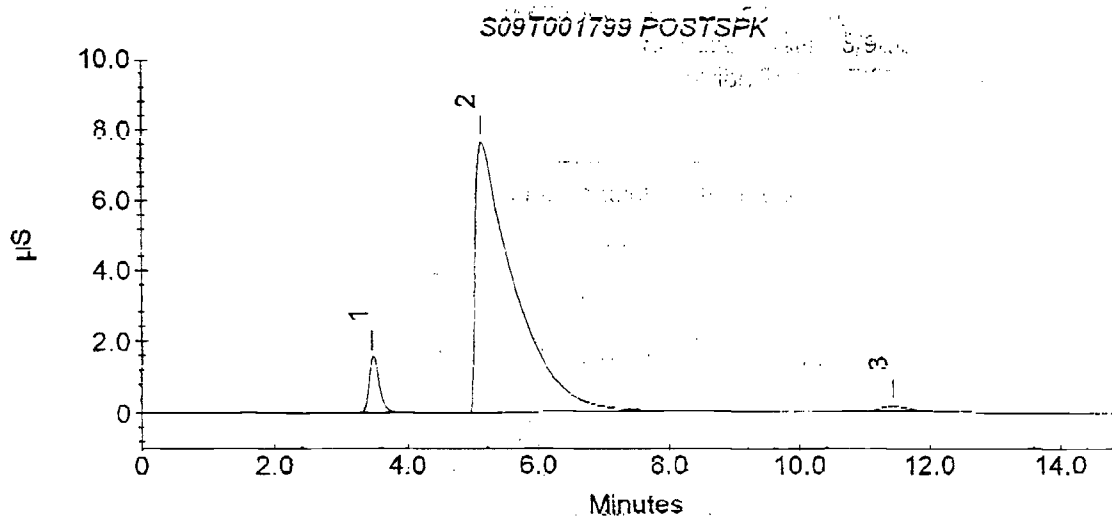
Sample Name : S09T001799 POSTSPK

Data File Name : C:\PEAKNET\DATA\09031000\_014.DXD

Method File Name : c:\peaknet\method\mh4green.met System Name : IC\_5  
Date Time Collected : 3/10/09 5:17:38 PM Calibration Date : 3/9/09 2:15:32 PM  
System Operator : KJT Calibration Type : EXTERNAL  
Dilution Factor : 1.01

## Peak Information : All Peaks

Peak #	Component	Retention Time	Amount (µg/mL)	Peak Area	Peak Height
1	Unknown 1	3.47	0.00000	170627	15176
2	Ammonium	5.11	11.03864	3132440	76205
3	Unknown 2	11.44	0.00000	49437	1653



## Sample Analysis Report

Sample Name : S09T001811

Data File Name : C:\PEAKNET\DATA\09031000\_015.DXD

Method File Name : c:\peaknet\method\hh4green.met System Name : IC\_5

Date Time Collected : 3/10/09 5:34:36 PM

Calibration Date : 3/9/09 2:15:32 PM

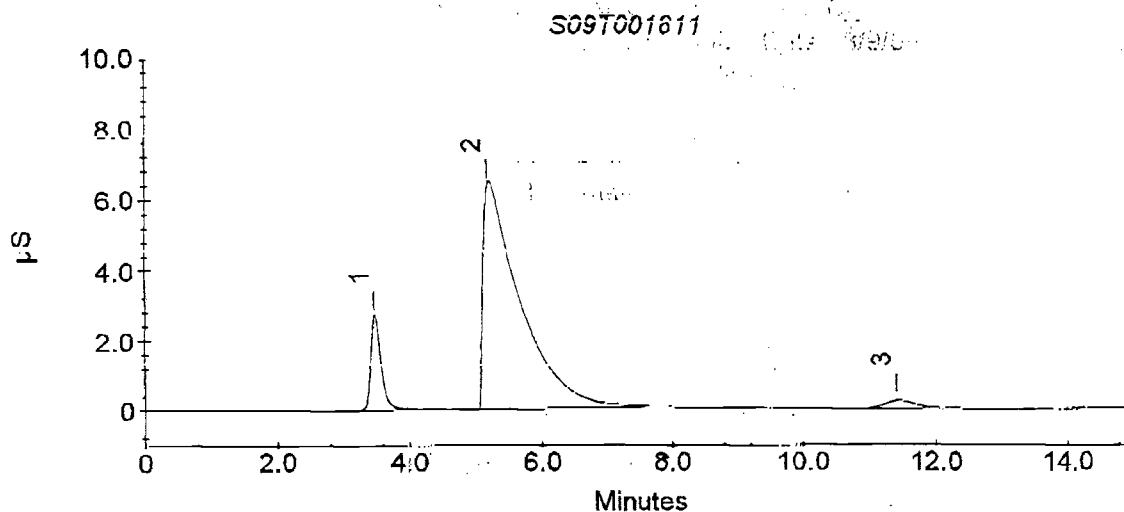
System Operator : KJT

Calibration Type : EXTERNAL

Dilution Factor : 1.00

## Peak Information : All Peaks

Peak #	Component	Retention Time	Amount (µg/mL)	Peak Area	Peak Height
1	Unknown 1	3.47	0.00000	293918	26163
2	Ammonium	5.16	8.44060	2588928	63382
3	Unknown 2	11.40	0.00000	66915	2178



PeakNet 5.21

Page 1 of 1

Current Date : 3/10/09  
Current Time : 17:49:38

## Sample Analysis Report

Sample Name : CCV 115N28A

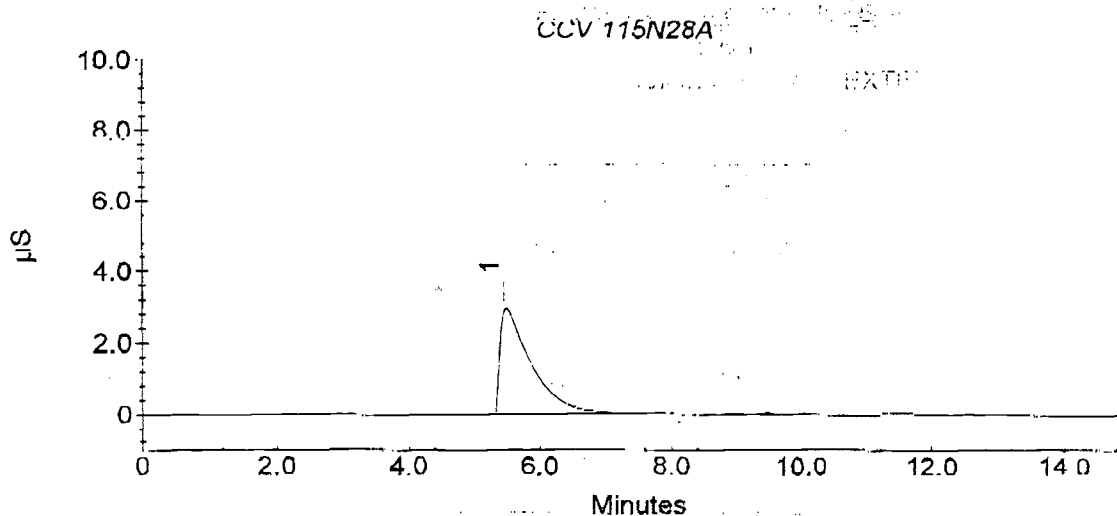
Data File Name : C:\PEAKNET\DATA\09031000\_016.DXD

Method File Name : c:\peaknet\method\nh4green.met System Name : IC\_5  
Date Time Collected : 3/10/09 5:51:35 PM Calibration Date : 3/9/09 2:15:32 PM  
System Operator : KJT Calibration Type : EXTERNAL  
Dilution Factor : 1.00

## Peak Information : All Peaks

Peak #	Component	Retention Time	Amount (µg/mL)	Peak Area	Peak Height
1	Ammonium	5.46	2.55816	988965	29190

100.0%



## Sample Analysis Report

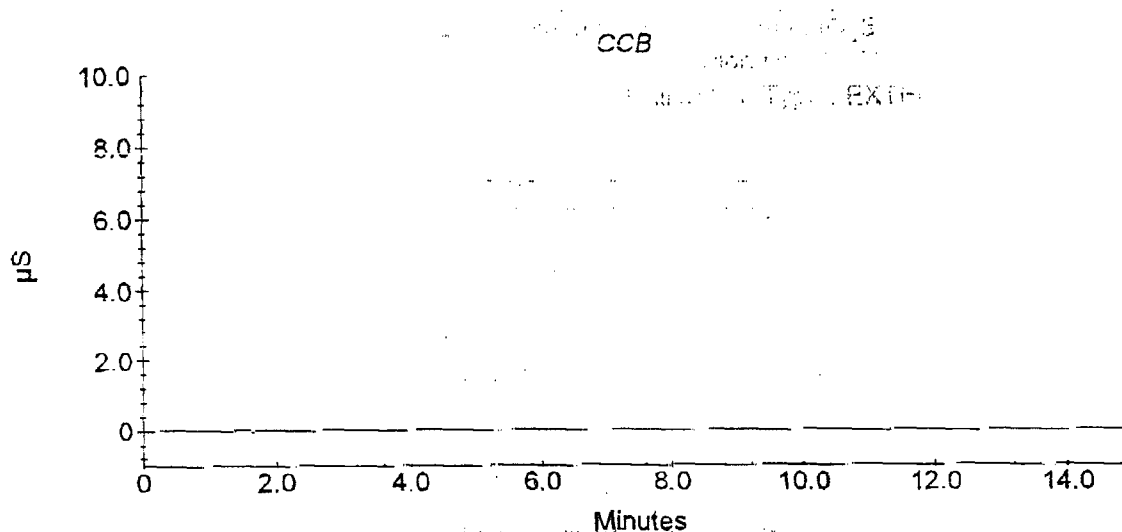
Sample Name : CCB

Data File Name : C:\PEAKNET\DATA\09031000\_017.DXD

Method File Name : c:\peaknet\method\hh4green.met System Name : IC\_5  
Date Time Collected : 3/10/09 6:08:36 PM Calibration Date : 3/9/09 2:15:32 PM  
System Operator : KJT Calibration Type : EXTERNAL  
Dilution Factor : 1.00

## Peak Information : All Peaks

Peak #	Component	Retention Time	Amount (µg/mL)	Peak Area	Peak Height
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PeakNet 5.21

Page 1 of 1

Current Date : 3/10/09  
Current Time : 18:23:36

Worklist/Project: 13359 / AW106 EVAP 20090162 Check Procedure Used: ☐ LA-533-101 (Cat) ☐ LA-533-107 (846 Anions) ☒ LA-533-115 (IC6 Anions)Run Date: 3/9/09 Instrument ID: IC-6 Prep Batches Analyzed (Worklist #): NA Prep Method: NA

Review Items	Yes	No	N/A	Comments/Samples Affected
<b>A. Calibration/Instrument Run QC</b>				
1. Instrument calibrated per procedure and at specified levels?	<input checked="" type="checkbox"/>			
2. If the Calibration date is different, has the change been recorded with the calibration record?			<input checked="" type="checkbox"/>	
3. Calibration curve correlation coefficient $\geq 0.995$ linear or $\geq 0.999$ quadratic?	<input checked="" type="checkbox"/>			
4. ICV/CCV analyzed at appropriate frequency and within control limits (Recovery: 90-110%)?	<input checked="" type="checkbox"/>			
5. ICB/CCB analyzed at required frequency and < EQL (or RL) or <5% of the lowest sample result?	<input checked="" type="checkbox"/>			
6. LLS run and within control limits? For IH, recovery is mandatory to verify RI. <input type="checkbox"/> 75-125% SW-846 9056A requirement <input checked="" type="checkbox"/> 50-150%	<input checked="" type="checkbox"/>			
<b>B. Sample Results</b>				
1. Were samples with concentrations > linear range for any analyte diluted and reanalyzed?	<input checked="" type="checkbox"/>			Samples 1772, 1783 re-run on later date.
2. Are all reported results bracketed by in-control QC?	<input checked="" type="checkbox"/>			
3. Are there 10 or fewer samples runs between bracketed, in-control QC?	<input checked="" type="checkbox"/>			
<b>C. Preparation/Matrix QC</b>				
1. LCS/Prep Std prepared per prep batch and within control limits? Recovery: <input type="checkbox"/> 80-120% or <input type="checkbox"/> Statistical			<input checked="" type="checkbox"/>	
2. LCS Dup (Prep Std Dup) prepared per prep batch, if required, and within control limits? Recovery: <input type="checkbox"/> 80-120% or <input type="checkbox"/> Statistical ; RPD: <input type="checkbox"/> $\leq 20\%$ or <input type="checkbox"/> Statistical			<input checked="" type="checkbox"/>	
3. IH RLS run (when required) and within mandatory control limits (Recovery: 75-125%)?			<input checked="" type="checkbox"/>	
4. Method/Media Blank prepared per prep batch and < EQL (or RL) or <5% of the lowest sample result?			<input checked="" type="checkbox"/>	
5. Duplicate or MS Duplicate run at required frequency and within control limits? %RPD: <input checked="" type="checkbox"/> $\leq 20\%$ or <input type="checkbox"/> Client-specified	<input checked="" type="checkbox"/>			
6. MS run at required frequency and within control limit? Recovery: <input checked="" type="checkbox"/> 75-125% or <input type="checkbox"/> Client-specified	<input checked="" type="checkbox"/>			
<b>D. Other</b>				
1. Are all problems and nonconformance issues documented appropriately?	<input checked="" type="checkbox"/>			
2. Are current IDL/MDL/IDL/RI/Calibration data on file?	<input checked="" type="checkbox"/>			
3. Calculations/transcriptions checked for errors?	<input checked="" type="checkbox"/>			
4. Are all raw data complete and verified in Omni LIMS?	<input checked="" type="checkbox"/>			
5. All client/project specific requirements met (e.g., MDL, Holding time, etc.)?	<input checked="" type="checkbox"/>			
6. Date/time of analysis verified as correct?	<input checked="" type="checkbox"/>			
7. All Benchsheet(s)/Worklist(s) properly completed and included, as required?	<input checked="" type="checkbox"/>			
8. IH Only: Media Blank subtracted from Sample results?			<input checked="" type="checkbox"/>	

1<sup>st</sup> Data Reviewer: K.B. Date: 3/12/092<sup>nd</sup> Data Reviewer: C.E. Mergard Date: 03/12/09QA: LS Sullivan 3.17.09

## LABCORE Completed Batch Report for Batch# 00013359

**Analyst:** Edwards, Cheryl

**Book#:** 113N28C

**Instrument:** IC-6 (SMALL ORG ACIDS)

**Method:** IC - ANIONS/SMALL ORG. ACIDS, LA-533-115 Rev/Mod J-0

**Specification:** AW106 EVAP3

**Prep Batch:**

**Batch Comment:** AW106 EVAP3 IC6

Seq Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
Sample Sequence 1															
1 ICV	S0903110085		0	0	Fluoride	LIQUID	.4729856	4.5737E-01			1.61E-03	ug/mL	96.699	% Recovery	
1 ICV	S0903110085		0	0	Glycolate	LIQUID	2.976	2.9306E+00			9.37E-03	ug/mL	98.474	% Recovery	
1 ICV	S0903110085		0	0	Acetate	LIQUID	3.5712	3.6903E+00			6.04E-03	ug/mL	103.33	% Recovery	
1 ICV	S0903110085		0	0	Formate	LIQUID	3.53152	3.4983E+00			4.67E-03	ug/mL	99.058	% Recovery	
1 ICV	S0903110085		0	0	Chloride	LIQUID	.678528	6.7168E-01			9.98E-03	ug/mL	98.991	% Recovery	
1 ICV	S0903110085		0	0	Nitrite	LIQUID	4.372736	4.2502E+00			0.0192	ug/mL	97.198	% Recovery	
1 ICV	S0903110085		0	0	Sulfate	LIQUID	5.142528	5.1280E+00			0.0187	ug/mL	99.717	% Recovery	
1 ICV	S0903110085		0	0	Oxalate	LIQUID	4.190208	4.1422E+00			0.0231	ug/mL	98.853	% Recovery	
1 ICV	S0903110085		0	0	Bromide	LIQUID	4.7616	4.3364E+00			0.058	ug/mL	91.071	% Recovery	
1 ICV	S0903110085		0	0	Nitrate	LIQUID	4.3648	4.1925E+00			0.0208	ug/mL	96.053	% Recovery	
1 ICV	S0903110085		0	0	Phosphate	LIQUID	4.372736	4.2871E+00			0.0167	ug/mL	98.042	% Recovery	
Sample Sequence 2															
2 ICB	S0903110086		0	0	Fluoride	LIQUID		<1.6100E-03			1.61E-03	ug/mL			
2 ICB	S0903110086		0	0	Glycolate	LIQUID		<9.3700E-03			9.37E-03	ug/mL			
2 ICB	S0903110086		0	0	Acetate	LIQUID		<6.0400E-03			6.04E-03	ug/mL			
2 ICB	S0903110086		0	0	Formate	LIQUID		<4.6700E-03			4.67E-03	ug/mL			
2 ICB	S0903110086		0	0	Chloride	LIQUID		<9.9800E-03			9.98E-03	ug/mL			
2 ICB	S0903110086		0	0	Nitrite	LIQUID		<1.9200E-02			0.0192	ug/mL			
2 ICB	S0903110086		0	0	Sulfate	LIQUID		<1.8700E-02			0.0187	ug/mL			
2 ICB	S0903110086		0	0	Oxalate	LIQUID		<2.3100E-02			0.0231	ug/mL			
2 ICB	S0903110086		0	0	Bromide	LIQUID		<5.8000E-02			0.058	ug/mL			
2 ICB	S0903110086		0	0	Nitrate	LIQUID		<2.0800E-02			0.0208	ug/mL			
2 ICB	S0903110086		0	0	Phosphate	LIQUID		<1.6700E-02			0.0167	ug/mL			
Sample Sequence 3															
3 LLS	S0903110087		0	0	Fluoride	LIQUID	.029651	2.4900E-02			1.61E-03	ug/mL	83.977	% Recovery	
3 LLS	S0903110087		0	0	Glycolate	LIQUID	.1865625	1.5411E-01			9.37E-03	ug/mL	82.605	% Recovery	
3 LLS	S0903110087		0	0	Acetate	LIQUID	.223875	1.9856E-01			6.04E-03	ug/mL	88.692	% Recovery	
3 LLS	S0903110087		0	0	Formate	LIQUID	.2213875	2.1189E-01			4.67E-03	ug/mL	95.71	% Recovery	
3 LLS	S0903110087		0	0	Chloride	LIQUID	.04253625	4.1290E-02			9.98E-03	ug/mL	97.07	% Recovery	
3 LLS	S0903110087		0	0	Nitrite	LIQUID	.2741225	2.5044E-01			0.0192	ug/mL	91.361	% Recovery	
3 LLS	S0903110087		0	0	Sulfate	LIQUID	.32238	2.9872E-01			0.0187	ug/mL	92.661	% Recovery	

Units shown for QC (BLK/BKG) may not reflect the actual units.

RPP-RPT-40709 Rev. 1



## LABCORE Completed Batch Report for Batch# 00013359

Seq Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DI/RI/UL)	Unit	Yield	Yield Unit	Flags
3 LLS	S0903110087		0 0		Oxalate	LIQUID	.26268	2.2694E-01			0.0231	ug/mL	86.394	% Recovery	
3 LLS	S0903110087		0 0		Bromide	LIQUID	.2985	2.1749E-01			0.058	ug/mL	72.861	% Recovery	
3 LLS	S0903110087		0 0		Nitrate	LIQUID	.273625	2.2107E-01			0.0208	ug/mL	80.793	% Recovery	
3 LLS	S0903110087		0 0		Phosphate	LIQUID	.2741225	2.1775E-01			0.0167	ug/mL	79.435	% Recovery	
Sample Sequence 4															
4 SAMPLE	S09T001772		0 1		Fluoride	LIQUID	N/A	3.2972E+02			1.7887	ug/mL			
4 SAMPLE	S09T001772		0 1		Glycolate	LIQUID	N/A	2.1065E+02			10.41	ug/mL			
4 SAMPLE	S09T001772		0 1		Acetate	LIQUID	N/A	3.6371E+02			6.7104	ug/mL			
4 SAMPLE	S09T001772		0 1		Formate	LIQUID	N/A	6.8743E+02			5.1884	ug/mL			
4 SAMPLE	S09T001772		0 1		Chloride	LIQUID	N/A	1.5710E+03			11.088	ug/mL			
4 SAMPLE	S09T001772		0 1		Sulfate	LIQUID	N/A	6.6396E+03			20.776	ug/mL			
4 SAMPLE	S09T001772		0 1		Oxalate	LIQUID	N/A	1.6320E+03			25.664	ug/mL			
4 SAMPLE	S09T001772		0 1		Bromide	LIQUID	N/A	<6.4438E+01			64.438	ug/mL			U
4 SAMPLE	S09T001772		0 1		Phosphate	LIQUID	N/A	2.6265E+03			18.554	ug/mL			
Sample Sequence 5															
5 DUP	S0903110088	S09T001772	0 0		Fluoride	LIQUID	3.2972E+02	3.3115E+02			1.7887	ug/mL	0.43276	% RPD	
5 DUP	S0903110088	S09T001772	0 0		Glycolate	LIQUID	2.1065E+02	2.1102E+02			10.41	ug/mL	0.17549	% RPD	
5 DUP	S0903110088	S09T001772	0 0		Acetate	LIQUID	3.6371E+02	3.6656E+02			6.7104	ug/mL	0.78053	% RPD	
5 DUP	S0903110088	S09T001772	0 0		Formate	LIQUID	6.8743E+02	6.8798E+02			5.1884	ug/mL	0.079976	% RPD	
5 DUP	S0903110088	S09T001772	0 0		Chloride	LIQUID	1.5710E+03	1.5710E+03			11.088	ug/mL	0	% RPD	
5 DUP	S0903110088	S09T001772	0 0		Sulfate	LIQUID	6.6396E+03	6.6658E+03			20.776	ug/mL	0.39383	% RPD	
5 DUP	S0903110088	S09T001772	0 0		Oxalate	LIQUID	1.6320E+03	1.6376E+03			25.664	ug/mL	0.34255	% RPD	
5 DUP	S0903110088	S09T001772	0 0		Bromide	LIQUID	<6.4438E+01	<6.4438E+01			64.438	ug/mL			
5 DUP	S0903110088	S09T001772	0 0		Phosphate	LIQUID	2.6265E+03	2.6116E+03			18.554	ug/mL	0.56891	% RPD	
Sample Sequence 6															
6 SPK-IC	S0903110089	S09T001772	0 0		Fluoride	LIQUID	59.6	9.1523E+02			1.61E-03	ug/mL	97.267	% Recovery	
6 SPK-IC	S0903110089	S09T001772	0 0		Glycolate	LIQUID	375	4.1399E+03			9.37E-03	ug/mL	103.74	% Recovery	
6 SPK-IC	S0903110089	S09T001772	0 0		Acetate	LIQUID	450	5.3315E+03			6.04E-03	ug/mL	109.3	% Recovery	
6 SPK-IC	S0903110089	S09T001772	0 0		Formate	LIQUID	445	5.2704E+03			4.67E-03	ug/mL	101.97	% Recovery	
6 SPK-IC	S0903110089	S09T001772	0 0		Chloride	LIQUID	85.5	2.2973E+03			9.98E-03	ug/mL	84.104	% Recovery	
6 SPK-IC	S0903110089	S09T001772	0 0		Sulfate	LIQUID	648	1.2729E+04			0.0187	ug/mL	93.034	% Recovery	
6 SPK-IC	S0903110089	S09T001772	0 0		Oxalate	LIQUID	528	6.8210E+03			0.0231	ug/mL	97.304	% Recovery	
6 SPK-IC	S0903110089	S09T001772	0 0		Bromide	LIQUID	600	5.7386E+03			0.058	ug/mL	94.697	% Recovery	
6 SPK-IC	S0903110089	S09T001772	0 0		Phosphate	LIQUID	551	8.0828E+03			0.0167	ug/mL	98.046	% Recovery	
Sample Sequence 7															
7 SAMPLE	S09T001783		0 1		Fluoride	LIQUID	N/A	3.1520E+02			1.7887	ug/mL			
7 SAMPLE	S09T001783		0 1		Glycolate	LIQUID	N/A	2.0273E+02			10.41	ug/mL			
7 SAMPLE	S09T001783		0 1		Acetate	LIQUID	N/A	3.4736E+02			6.7104	ug/mL			
7 SAMPLE	S09T001783		0 1		Formate	LIQUID	N/A	6.5437E+02			5.1884	ug/mL			
7 SAMPLE	S09T001783		0 1		Chloride	LIQUID	N/A	1.5084E+03			11.088	ug/mL			

Units shown for QC (BLK/BKG) may not reflect the actual units.

RPP-RPT-40709 Rev. 1

## LABCORE Completed Batch Report for Batch# 00013359

Seq Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
7 SAMPLE	S09T001783		0	1	Sulfate	LIQUID	N/A	6.4106E+03			20.776	ug/mL			
7 SAMPLE	S09T001783		0	1	Oxalate	LIQUID	N/A	1.5614E+03			25.664	ug/mL			
7 SAMPLE	S09T001783		0	1	Bromide	LIQUID	N/A	<6.4438E+01			64.438	ug/mL			U
7 SAMPLE	S09T001783		0	1	Phosphate	LIQUID	N/A	2.5055E+03			18.554	ug/mL			
Sample Sequence 8															
9 SAMPLE	S09T001795		0	1	Fluoride	LIQUID	N/A	3.6365E+02			1.7887	ug/mL			
9 SAMPLE	S09T001795		0	1	Glycolate	LIQUID	N/A	2.3290E+02			10.41	ug/mL			
9 SAMPLE	S09T001795		0	1	Acetate	LIQUID	N/A	4.0485E+02			6.7104	ug/mL			
9 SAMPLE	S09T001795		0	1	Formate	LIQUID	N/A	7.5231E+02			5.1884	ug/mL			
9 SAMPLE	S09T001795		0	1	Chloride	LIQUID	N/A	1.7226E+03			11.088	ug/mL			
8 SAMPLE	S09T001795		0	0	Nitrite	LIQUID	N/A	3.1530E+04			195.86	ug/mL			
9 SAMPLE	S09T001795		0	1	Sulfate	LIQUID	N/A	7.3102E+03			20.776	ug/mL			
9 SAMPLE	S09T001795		0	1	Oxalate	LIQUID	N/A	1.7901E+03			25.664	ug/mL			
9 SAMPLE	S09T001795		0	1	Bromide	LIQUID	N/A	<6.4438E+01			64.438	ug/mL			U
8 SAMPLE	S09T001795		0	0	Nitrate	LIQUID	N/A	1.0808E+05			212.18	ug/mL			
9 SAMPLE	S09T001795		0	1	Phosphate	LIQUID	N/A	2.8733E+03			18.554	ug/mL			
Sample Sequence 10															
10 CCV	S0903110090		0	0	Fluoride	LIQUID	.4729856	4.6363E-01			1.61E-03	ug/mL	98.022	% Recovery	
10 CCV	S0903110090		0	0	Glycolate	LIQUID	2.976	2.9951E+00			9.37E-03	ug/mL	100.64	% Recovery	
10 CCV	S0903110090		0	0	Acetate	LIQUID	3.5712	3.8048E+00			6.04E-03	ug/mL	106.54	% Recovery	
10 CCV	S0903110090		0	0	Formate	LIQUID	3.53152	3.5723E+00			4.67E-03	ug/mL	101.16	% Recovery	
10 CCV	S0903110090		0	0	Chloride	LIQUID	.678528	6.8018E-01			9.98E-03	ug/mL	100.24	% Recovery	
10 CCV	S0903110090		0	0	Nitrite	LIQUID	4.372736	4.3410E+00			0.0192	ug/mL	99.275	% Recovery	
10 CCV	S0903110090		0	0	Sulfate	LIQUID	5.142528	5.1927E+00			0.0187	ug/mL	100.98	% Recovery	
10 CCV	S0903110090		0	0	Oxalate	LIQUID	4.190208	4.2004E+00			0.0231	ug/mL	100.24	% Recovery	
10 CCV	S0903110090		0	0	Bromide	LIQUID	4.7616	4.3969E+00			0.058	ug/mL	92.341	% Recovery	
10 CCV	S0903110090		0	0	Nitrate	LIQUID	4.3648	4.2710E+00			0.0208	ug/mL	97.85	% Recovery	
10 CCV	S0903110090		0	0	Phosphate	LIQUID	4.372736	4.3445E+00			0.0167	ug/mL	99.355	% Recovery	
Sample Sequence 11															
11 CCB	S0903110091		0	0	Fluoride	LIQUID		<1.6100E-03			1.61E-03	ug/mL			
11 CCB	S0903110091		0	0	Glycolate	LIQUID		<9.3700E-03			9.37E-03	ug/mL			
11 CCB	S0903110091		0	0	Acetate	LIQUID		<6.0400E-03			6.04E-03	ug/mL			
11 CCB	S0903110091		0	0	Formate	LIQUID		<4.6700E-03			4.67E-03	ug/mL			
11 CCB	S0903110091		0	0	Chloride	LIQUID		<9.9800E-03			9.98E-03	ug/mL			
11 CCB	S0903110091		0	0	Nitrite	LIQUID		<1.9200E-02			0.0192	ug/mL			
11 CCB	S0903110091		0	0	Sulfate	LIQUID		<1.8700E-02			0.0187	ug/mL			
11 CCB	S0903110091		0	0	Oxalate	LIQUID		<2.3100E-02			0.0231	ug/mL			
11 CCB	S0903110091		0	0	Bromide	LIQUID		<5.8000E-02			0.058	ug/mL			
11 CCB	S0903110091		0	0	Nitrate	LIQUID		<2.0800E-02			0.0208	ug/mL			
11 CCB	S0903110091		0	0	Phosphate	LIQUID		<1.6700E-02			0.0167	ug/mL			

RPP-RPT-40709 Rev. 1

Units shown for QC (BLK/BKG) may not reflect the actual units.

## LABCORE Completed Batch Report for Batch# 00013359

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### Comments Section:

Comments for sample: S0903110085, test: IC - ANIONS/SMALL ORG. ACIDS

r:\PKNTTR~1\090309~1\009030900\_004.DXD

Comments for sample: S0903110090, test: IC - ANIONS/SMALL ORG. ACIDS

r:\PKNTTR~1\090309~1\009030900\_014.DXD

Comments for sample: S0903110091, test: IC - ANIONS/SMALL ORG. ACIDS

r:\PKNTTR~1\090309~1\009030900\_015.DXD

Comments for sample: S0903110086, test: IC - ANIONS/SMALL ORG. ACIDS

r:\PKNTTR~1\090309~1\009030900\_005.DXD

Comments for sample: S0903110087, test: IC - ANIONS/SMALL ORG. ACIDS

r:\PKNTTR~1\090309~1\009030900\_006.DXD

Comments for sample: S09T001772, test: IC - ANIONS/SMALL ORG. ACIDS

r:\PKNTTR~1\090309~1\009030900\_008.DXD

Comments for sample: S0903110088, test: IC - ANIONS/SMALL ORG. ACIDS

r:\PKNTTR~1\090309~1\009030900\_009.DXD

283 Comments for sample: S0903110089, test: IC - ANIONS/SMALL ORG. ACIDS

r:\PKNTTR~1\090309~1\009030900\_010.DXD

Comments for sample: S09T001783, test: IC - ANIONS/SMALL ORG. ACIDS

r:\PKNTTR~1\090309~1\009030900\_011.DXD

Comments for sample: S09T001795, test: IC - ANIONS/SMALL ORG. ACIDS

r:\PKNTTR~1\090309~1\009030900\_007.DXD

Comments for sample: S09T001795, test: IC - ANIONS/SMALL ORG. ACIDS

r:\PKNTTR~1\090309~1\009030900\_012.DXD

Data Flagger Status:  
Flagging Completed

### Final Page for Batch# 00013359

  
Reviewer Signature

  
Date

### LABCORE Completed Batch Report for Batch# 00013359

Seq	Sample#	QC Type	Assoc. Sample	Sample Group	Customer Id	Specification
1	S0903110085	ICV				
2	S0903110086	ICB				
3	S0903110087	LLS				
4	S09T001772	SAMPLE		20090162	6AW-08-01	AW106 EVAP3
5	S0903110088	DUP	S09T001772			
6	S0903110089	SPK-IC	S09T001772			
7	S09T001783	SAMPLE		20090162	6AW-08-02B	AW106 EVAP3
8	S09T001795	SAMPLE		20090162	6AW-08-03B	AW106 EVAP3
9	S09T001795	SAMPLE		20090162	6AW-08-03B	AW106 EVAP3
10	S0903110090	CCV				
11	S0903110091	CCB				

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Line	Vial#	Inj./Vial	Volume	Inj. Type	Cut Vol.	Syr. Spd.	Sample	Sample Type	Level	Method	Sample Prep.	Data File	Dilution
1	1	2	25	Full	0	5	CCB	Sample		as15hood4_new08090300.met		009030900	1
2	2	2	25	Full	0	5	CCV 113N28C 126	Sample		as15hood4_new08090300.met		009030900	1
3	1	1	25	Full	0	5	CCB	Sample		as15hood4_new08090300.met		009030900	1
4	3	1	25	Full	0	5	LLS 113N28C 2010	Sample		as15hood4_new08090300.met		009030900	1
5	4	1	25	Full	0	5	S09T001795 SAM 10201	Sample		as15hood4_new08090300.met		009030900	1
6	5	1	25	Full	0	5	S09T001772 SAM 1111	Sample		as15hood4_new08090300.met		009030900	1
7	6	1	25	Full	0	5	S09T001772 DUP 1111	Sample		as15hood4_new08090300.met		009030900	21
8	7	1	25	Full	0	5	S09T001772 SPK 1111	Sample		as15hood4_new08090300.met		009030900	1
9	8	1	25	Full	0	5	S09T001783 SAM 1111	Sample		as15hood4_new08090300.met		009030900	10
10	9	1	25	Full	0	5	S09T001795 1111	Sample		as15hood4_new08090300.met		009030900	2
11	2	2	25	Full	0	5	CCV 113N28C 126	Sample		as15hood4_new08090300.met		009030900	1
12	1	1	25	Full	0	5	CCB	Sample		as15hood4_new08090300.met		009030900	1
13	1	1	25	Full	0	5	STOP	Sample		30 deg stop hood 4.met		009030900	1
14													
15													
16													
17													
18													
19													
20													
21													
22													
23													
24													
25													

File #  
090309 #14

## LABCORE Data Entry Template for Batch# 00013359

**Analyst:** Edwards, Cheryl

**Standard ID / Book#:** 113N28C

**Instrument:** IC-6 (SMALL ORG ACIDS)

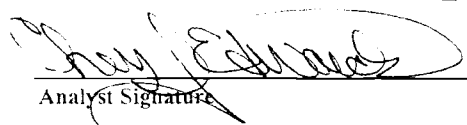
**Method:** IC - ANIONS/SMALL ORG. ACIDS, LA-533-115 Rev/Mod J-0

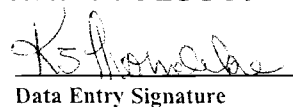
**Prep Batch:**

**Batch Comment:** AW106 EVAP3 IC6

S	Type	Sample	R	A	Matrix	Group#	Project
1	ICV		0		LIQUID		
	Analytes Requested:	Acetate, Bromide, Chloride, Fluoride, Formate, Glycolate, Nitrate, Nitrite, Oxalate, Phosphate, Sulfate					
2	ICB		0		LIQUID		
	Analytes Requested:	Acetate, Bromide, Chloride, Fluoride, Formate, Glycolate, Nitrate, Nitrite, Oxalate, Phosphate, Sulfate					
3	LLS		0		LIQUID		
	Analytes Requested:	Acetate, Bromide, Chloride, Fluoride, Formate, Glycolate, Nitrate, Nitrite, Oxalate, Phosphate, Sulfate					
4	SAMPLE	S09T001772	1		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Acetate, Bromide, Chloride, Fluoride, Formate, Glycolate, Oxalate, Phosphate, Sulfate					
5	DUP	S09T001772	0		LIQUID		
	Analytes Requested:	Acetate, Bromide, Chloride, Fluoride, Formate, Glycolate, Oxalate, Phosphate, Sulfate					
6	SPK-IC	S09T001772	0		LIQUID		
	Analytes Requested:	Acetate, Bromide, Chloride, Fluoride, Formate, Glycolate, Oxalate, Phosphate, Sulfate					
7	SAMPLE	S09T001783	1		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Acetate, Bromide, Chloride, Fluoride, Formate, Glycolate, Oxalate, Phosphate, Sulfate					
8	SAMPLE	S09T001795	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Acetate, Bromide, Chloride, Fluoride, Formate, Glycolate, Nitrate, Nitrite, Oxalate, Phosphate, Sulfate					
10	CCV		0		LIQUID		
	Analytes Requested:	Acetate, Bromide, Chloride, Fluoride, Formate, Glycolate, Nitrate, Nitrite, Oxalate, Phosphate, Sulfate					
11	CCB		0		LIQUID		
	Analytes Requested:	Acetate, Bromide, Chloride, Fluoride, Formate, Glycolate, Nitrate, Nitrite, Oxalate, Phosphate, Sulfate					

## Final Page for Batch# 00013359

 3/11/09  
Analyst Signature Date

 3-11-09  
Data Entry Signature Date

Data Entry Comments:

## ATL 222-S Laboratory: IC Instrument Run Bench Sheet

Project # AW 106 EVAP 3Batch # 13359Analyst C EDWARDSDate 03/09/09

Procedure	Calibration Date	Eluent Type	Eluent ID <sup>(1)</sup>	Expiration Date
[ ] LA-533-101		H <sub>2</sub> SO <sub>4</sub>		
[ ] LA-533-107		Na <sub>2</sub> CO <sub>3</sub> /NaHCO <sub>3</sub>		
[X] LA-533-115	02/03/09	EG40	SER # 080510687010	

IC Log Book # HNF-N-577 1Page(s) 26

Standard Type	Std ID <sup>(1)</sup>	Expiration Date
Calibration	N/A	N/A
CCV	113N28C	
ICV	113N28C	

Standard Type	Std ID <sup>(1)</sup>	Expiration Date
LLS	113N28C	3/13/2009
Spike <sup>(2)</sup>	113N28C	3/13/09
Pipette ID	D61799, G10779	435870, 437916

#	Sample Number/Std Type	Dil Factor (DF)	Dilution Description <sup>(3)</sup>
1	ICV 090309-4	126	0.08ML-10ML
2	ICB	1	DIRECT
3	LLS 090309-3	2010	1ML 59N28D+9MLQH2O-0.05ML+10ML
4	S09T001795 SAM	10201	.1ML-10ML-.1-10ML
5	S09T001772 SAM	1111	.1ML-10ML-.1-10ML
6	S09T001772 DUP	1111	.1ML-10ML-.1-10ML
7	S09T001772 SPK	1111	.1ML-10ML-.500ML-10ML
8	S09T001783 SAM	1111	.1ML-10ML-.500ML-10ML
9	S09T001795 SAM	1111	.1ML-10ML-.500ML-10ML
10	CCV 113N28C	126	0.80ML-10ML
11	CCB	1	DIRECT
12			
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35			

## Sample Analysis Report

Sample Name : CCV 113N28C 126

Data File Name : c:\peaknet\data\009030900\_004.DXD

Method File Name : ...as15hood4\_new08090300.met

System Name : HD4-ANION\_WC80541

Date Time Collected : 3/9/09 2:46:45 PM

Calibration Date : 3/3/09 3:44:38 PM

System Operator : CE

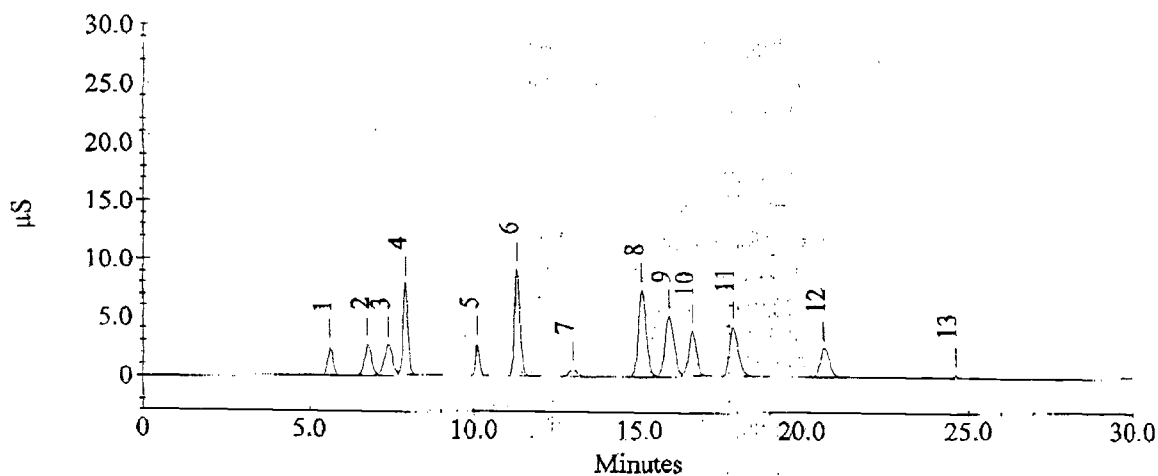
Calibration Level : 0

Dilution Factor : 1.00

### Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (µg/mL)	Peak Area	Peak Height
1	FLUORIDE	5.62	0.4573796,69	272972	23513
2	GLYCOLATE	6.77	2.9305898,47	391172	26079
3	ACETATE	7.39	3.69027103,33	457829	25761
4	FORMATE	7.91	3.4982699,05	793143	77850
5	CHLORIDE	10.11	0.6716898,78	224753	27109
6	NITRITE	11.28	4.2502297,19	1047775	92089
7	Unknown 1	12.99	0.00000	116305	5969
8	SULFATE	15.06	5.1280099,71	1266341	73753
9	OXALATE	15.91	4.14216988,74	995011	50330
10	BROMIDE	16.63	4.3364391,06	660669	38120
11	NITRATE	17.87	4.1925396,05	800576	41990
12	PHOSPHATE	20.66	4.2871298,04	480096	24556
13	Unknown 2	24.60	0.00000	15603	2487

CCV 113N28C 126



: PeakNet 5.21



## Sample Analysis Report

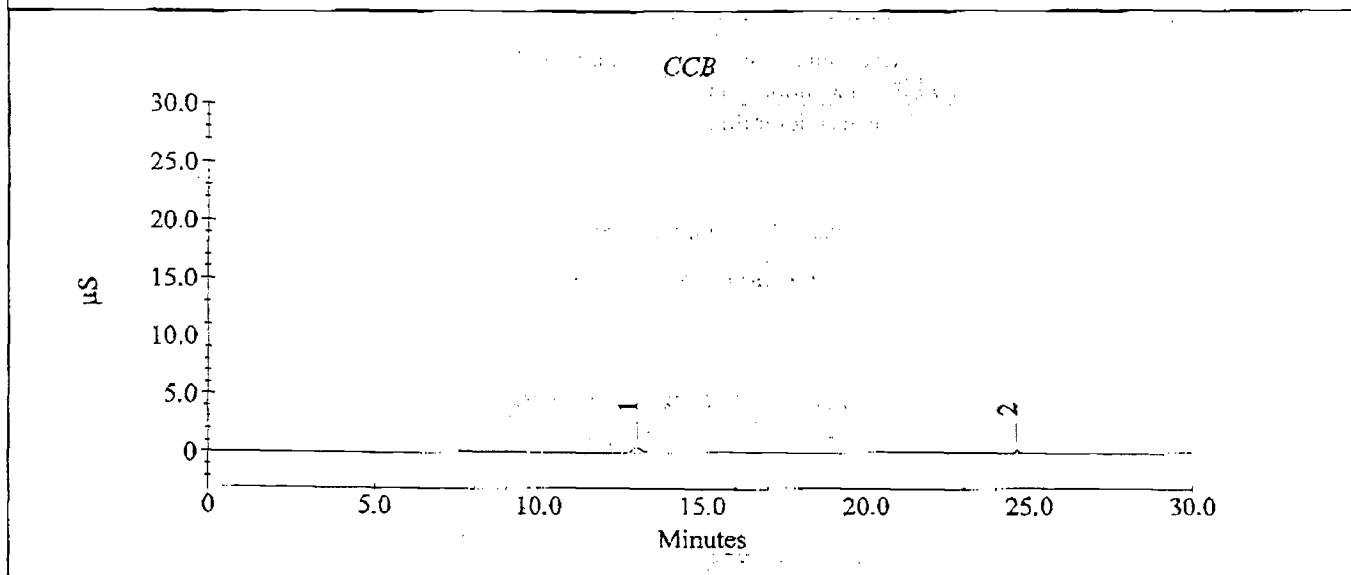
Sample Name : CCB

Data File Name : c:\peaknet\data\009030900\_005.DXD

Method File Name : ...las15hood4\_new08090300.met  
 Date Time Collected : 3/9/09 3:18:43 PM  
 System Operator : CE  
 Dilution Factor : 1.00

System Name : HD4-ANION\_WC80541  
 Calibration Date : 3/3/09 3:44:38 PM  
 Calibration Level : 0

Peak Information : All Peaks					
Peak #	Component Name	Retention Time	Amount (µg/mL)	Peak Area	Peak Height
1	Unknown 1	13.01	0.00000	81165	4252
2	Unknown 2	24.60	0.00000	15583	2472



## Sample Analysis Report

Sample Name : LLS 113N28C 2010

Data File Name : c:\peaknet\data\009030900\_006.DXD

Method File Name : ...as15hood4\_new08090300.mct

System Name : HD4-ANION\_WC80541

Date Time Collected : 3/9/09 3:50:38 PM

Calibration Date : 3/3/09 3:44:38 PM

System Operator : CE

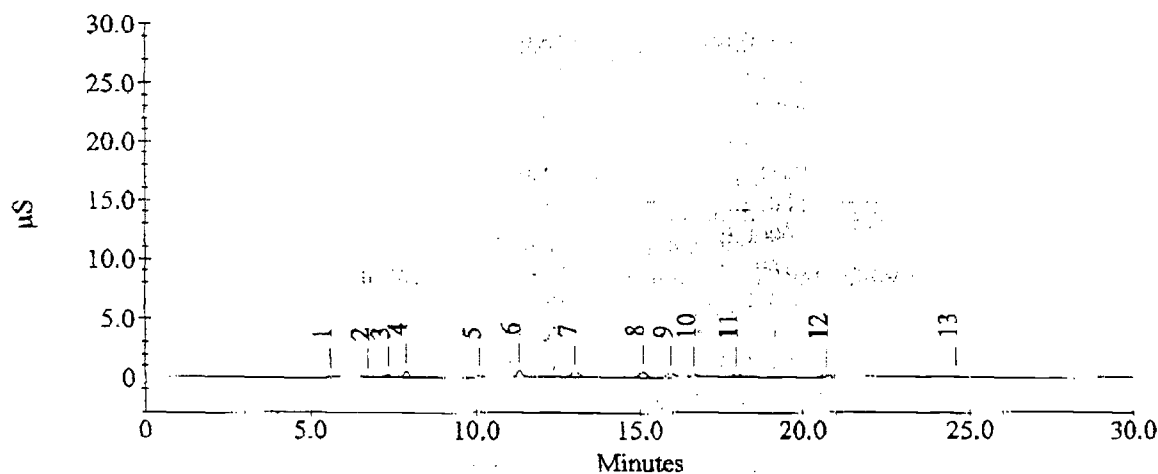
Calibration Level : 0

Dilution Factor : 1.00

### Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (µg/mL)	Peak Area	Peak Height
1	FLUORIDE	5.62	0.02490	14893	1331
2	GLYCOLATE	6.77	0.15411	20969	1544
3	ACETATE	7.38	0.19856	29315	1984
4	FORMATE	7.91	0.21189	50522	5464
5	CHLORIDE	10.11	0.04129	13740	1734
6	NITRITE	11.30	0.25044	62674	5946
7	Unknown 1	13.01	0.00000	84759	4466
8	SULFATE	15.10	0.29872	73585	4522
9	OXALATE	15.96	0.22694	56528	3264
10	BROMIDE	16.69	0.21749	32976	2333
11	NITRATE	17.98	0.22107	42026	2462
12	PHOSPHATE	20.73	0.21775	24274	1425
13	Unknown 2	24.60	0.00000	14830	2418

### LLS 113N28C 2010



## Sample Analysis Report

Sample Name : S09T001795 SAM 10201

Data File Name : R:\PKNT TRANSFER FILES\090309 IC-6\009030900\_007.DXD

Method File Name : ...as15hood4\_new08090300.met

System Name : HD4-ANION\_WC80541

Date Time Collected : 3/9/2009 5:22:35 PM

Calibration Date : 3/3/2009 3:44:38 PM

System Operator : CE

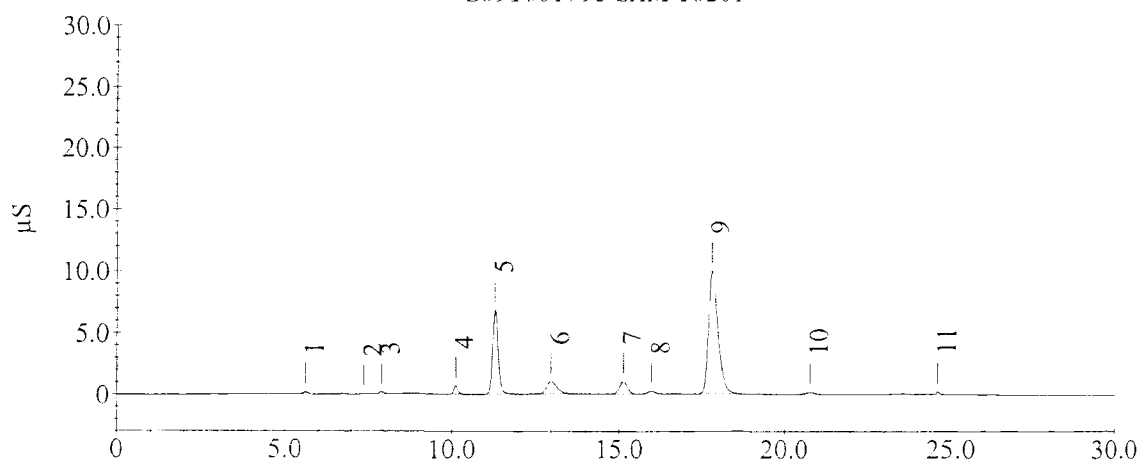
Calibration Level : 0

Dilution Factor : 10201.00

## Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (µg/mL)	Peak Area	Peak Height
1	FLUORIDE	5.61	318.35973	18665	1717
2	ACETATE	7.37	183.77568	2692	250
3	FORMATE	7.91	614.72547	14404	1649
4	CHLORIDE	10.11	1700.44890	55529	6864
5	NITRITE	11.28	31529.74708 ✓	765234	67939
6	Unknown 1	12.99	0.00000	212582	9971
7	SULFATE	15.11	7122.38342	172028	10327
8	OXALATE	15.97	1407.49327 ✓	34399	2092
9	NITRATE	17.77	108084.40040	2038161	99481
10	PHOSPHATE	20.77	2564.90425	28030	1546
11	Unknown 2	24.60	0.00000	14361	2375

S09T001795 SAM 10201



## Sample Analysis Report

Sample Name : S09T001772 SAM 1111

Data File Name : R:\PKNT TRANSFER FILES\090309 IC-6\009030900\_008.DXD

Method File Name : ...as15hood4\_new08090300.met

System Name : HD4-ANION\_WC80541

Date Time Collected : 3/9/2009 5:54:31 PM

Calibration Date : 3/3/2009 3:44:38 PM

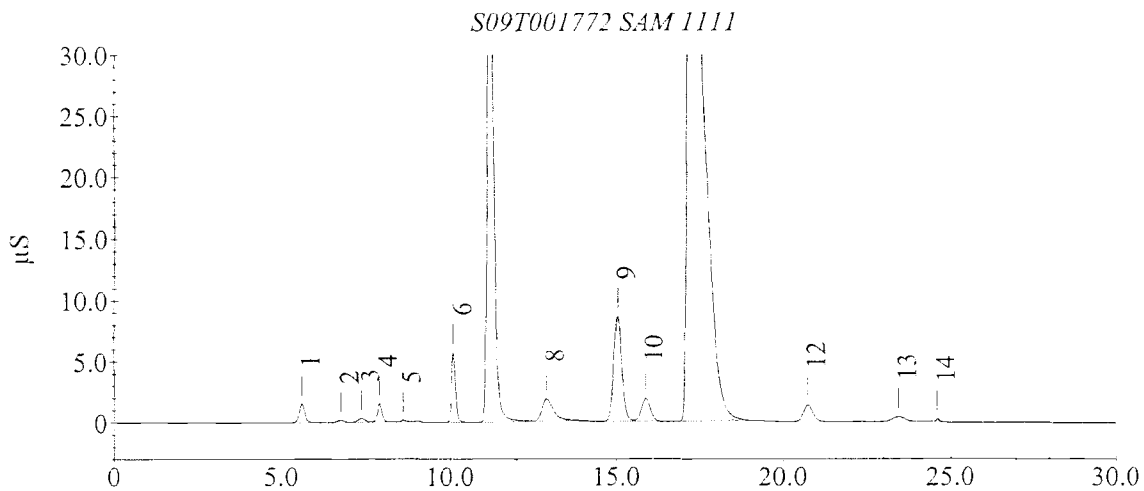
System Operator : CE

Calibration Level : 0

Dilution Factor : 1111.00

## Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (µg/mL)	Peak Area	Peak Height
1	FLUORIDE	5.61	329.71782 ✓	177261	15321
2	GLYCOLATE	6.75	210.65219 ✓	25793	1875
3	ACETATE	7.36	363.70797 ✓	47937	3085
4	FORMATE	7.90	687.42816 ✓	146551	15043
5	Unknown 1	8.60	0.00000	9826	1384
6	CHLORIDE	10.10	1570.98616 ✓	476331	57262
7	NITRITE	11.19	27250.60646	5652991	423283
8	Unknown 2	12.90	0.00000	434502	18362
9	SULFATE	15.04	6639.64773 ✓	1476465	86035
10	OXALATE	15.90	1631.95987 ✓	361551	19161
11	Unknown 3	17.24	0.00000	16647175	533039
12	PHOSPHATE	20.72	2626.46724 ✓	264169	13663
13	Unknown 4	23.45	0.00000	101119	4030
14	Unknown 5	24.60	0.00000	12550	2298



## Sample Analysis Report

Sample Name : S09T001772 DUP 1111

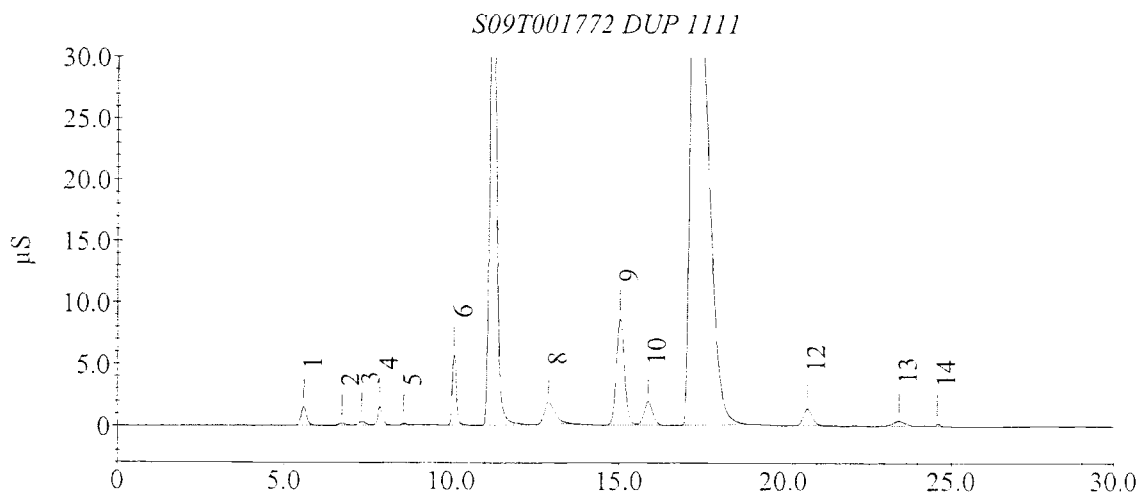
Data File Name : R:\PKNT TRANSFER FILES\090309 IC-6\009030900\_009.DXD

Method File Name : ...as15hood4\_new08090300.met  
 Date Time Collected : 3/9/2009 6:26:29 PM  
 System Operator : CE  
 Dilution Factor : 1111.00

System Name : HD4-ANION\_WC80541  
 Calibration Date : 3/3/2009 3:44:38 PM  
 Calibration Level : 0

## Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (µg/mL)	Peak Area	Peak Height
1	FLUORIDE	5.61	331.15437✓	178033	15360
2	GLYCOLATE	6.75	211.02266✓	25838	1865
3	ACETATE	7.35	366.55786✓	48305	3106
4	FORMATE	7.90	687.98242✓	146668	15047
5	Unknown 1	8.60	0.00000	9661	1402
6	CHLORIDE	10.10	1570.95197✓	476321	57255
7	NITRITE	11.19	27340.19651	5670197	424946
8	Unknown 2	12.90	0.00000	425746	18159
9	SULFATE	15.03	6665.83276✓	1482306	86151
10	OXALATE	15.90	1637.57081✓	362777	19231
11	Unknown 3	17.24	0.00000	16686158	533976
12	PHOSPHATE	20.73	2611.60676✓	262670	13698
13	Unknown 4	23.46	0.00000	99545	3995
14	Unknown 5	24.59	0.00000	12285	2130



## Sample Analysis Report

Sample Name : S09T001772 SPK 1111

Data File Name : R:\PKNT TRANSFER FILES\090309 IC-6\009030900\_010.DXD

Method File Name : ...as15hood4\_new08090300.met

System Name : HD4-ANION\_WC80541

Date Time Collected : 3/9/2009 6:58:27 PM

Calibration Date : 3/11/2009 2:30:45 PM

System Operator : CE

Calibration Level : 0

Dilution Factor : 1111.00

## Peak Information : All Peaks

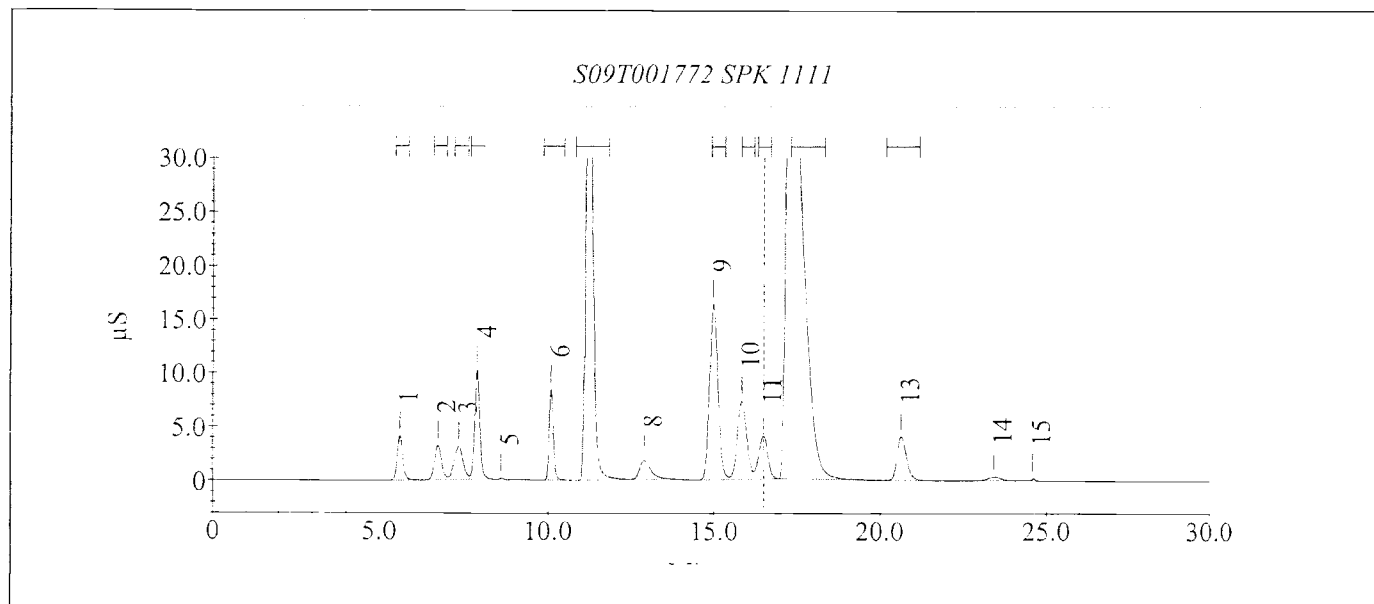
Peak #	Component Name	Retention Time	Amount (ug/mL)	Peak Area	Peak Height
1	FLUORIDE	5.61	915.22761 ✓	490796	40968
2	GLYCOLATE	6.76	4139.93842 ✓	494751	32266
3	ACETATE	7.38	5331.50726 ✓	571223	30931
4	FORMATE	7.91	5270.39993 ✓	1057099	101594
5	Unknown 1	8.60	0.00000	8843	1249
6	CHLORIDE	10.10	2297.26986 ✓	700742	83706
7	NITRITE	11.19	30233.53796	6221751	458325
8	Unknown 2	12.90	0.00000	417863	17742
9	SULFATE	14.98	12728.51105 ✓	2838489	163216
10	OXALATE	15.84	6820.99340 ✓	1449771	72993
11	BROMIDE	16.50	5738.64009 ✓	787724	39914
12	Unknown 3	17.25	0.00000	16007658	517079
13	PHOSPHATE	20.64	8082.81626 ✓	817494	40819
14	Unknown 4	23.43	0.00000	90528	3632
15	Unknown 5	24.59	0.00000	12983	2231



## Sample Analysis Report

Sample Name : S09T001772 SPK 1111

Data File Name : R:\PKNT TRANSFER FILES\090309 IC-6\009030900\_010.DXD



## Sample Analysis Report

Sample Name : S09T001783 SAM 1111

Data File Name : R:\PKNT TRANSFER FILES\090309 IC-6\009030900\_011.DXD

Method File Name : ...as15hood4\_new08090300.met

System Name : HD4-ANION\_WC80541

Date Time Collected : 3/9/2009 7:30:26 PM

Calibration Date : 3/3/2009 3:44:38 PM

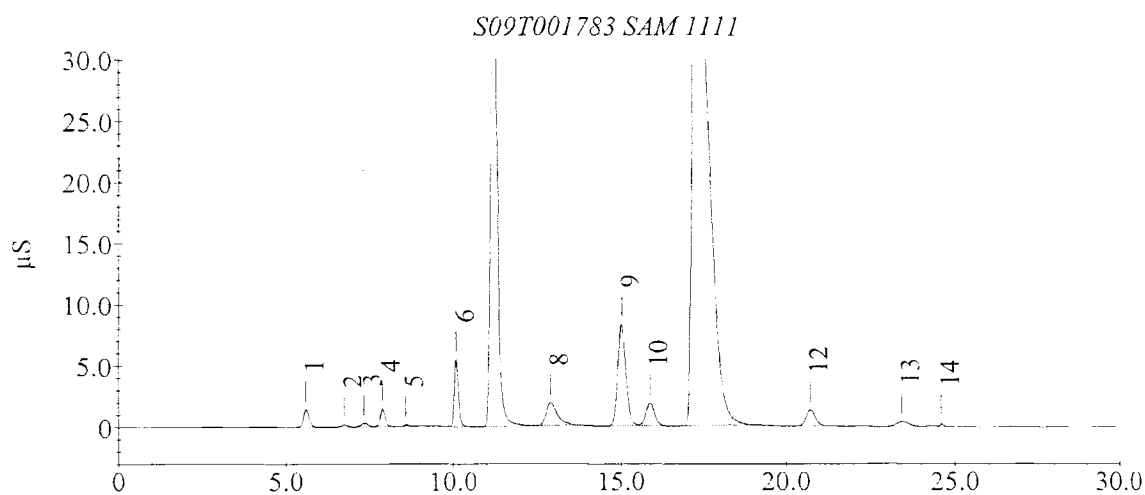
System Operator : CE

Calibration Level : 0

Dilution Factor : 1111.00

## Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (µg/mL)	Peak Area	Peak Height
1	FLUORIDE	5.60	315.20209 ✓	169468	14597
2	GLYCOLATE	6.75	202.72892 ✓	24824	1795
3	ACETATE	7.35	347.35925 ✓	45825	2962
4	FORMATE	7.90	654.36636 ✓	139570	14457
5	Unknown 1	8.59	0.00000	9230	1329
6	CHLORIDE	10.10	1508.42341 ✓	457128	54896
7	NITRITE	11.19	26290.18261	5468054	410376
8	Unknown 2	12.90	0.00000	429881	18194
9	SULFATE	15.03	6410.56983 ✓	1425374	82875
10	OXALATE	15.90	1561.36745 ✓	346119	18408
11	Unknown 3	17.26	0.00000	16042512	518133
12	PHOSPHATE	20.72	2505.48895 ✓	251970	13158
13	Unknown 4	23.43	0.00000	99305	3904
14	Unknown 5	24.60	0.00000	12773	2346





## Sample Analysis Report

Sample Name : S09T001795 1111

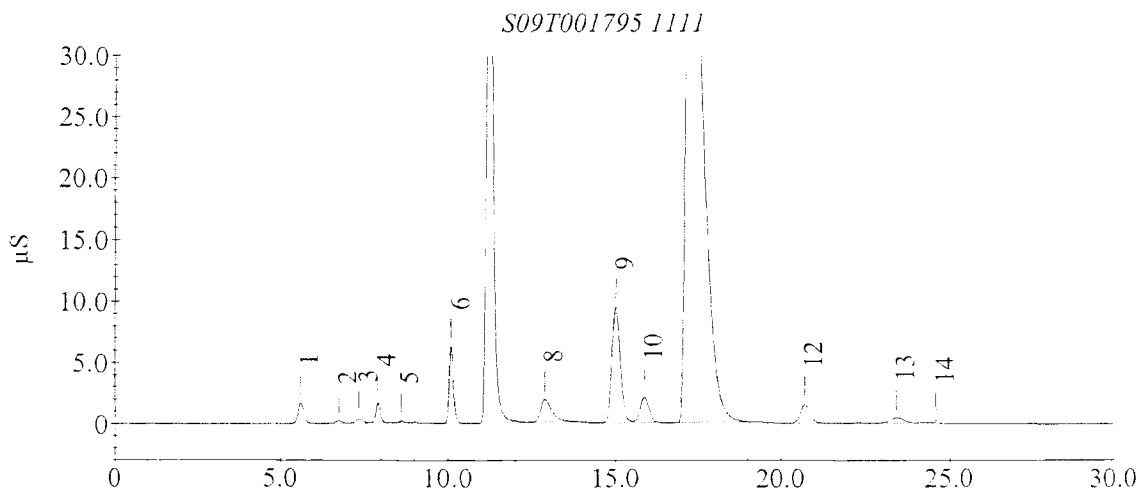
Data File Name : R:\PKNT TRANSFER FILES\090309 IC-6\009030900\_012.DXD

Method File Name : ...as15hood4\_new08090300.met  
 Date Time Collected : 3/9/2009 8:02:22 PM  
 System Operator : CE  
 Dilution Factor : 1111.00

System Name : HD4-ANION\_WC80541  
 Calibration Date : 3/3/2009 3:44:38 PM  
 Calibration Level : 0

## Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (µg/mL)	Peak Area	Peak Height
1	FLUORIDE	5.60	363.65212 ✓	195476	16654
2	GLYCOLATE	6.75	232.89627 ✓	28513	2060
3	ACETATE	7.35	404.85450 ✓	53236	3409
4	FORMATE	7.90	752.30697 ✓	160231	16413
5	Unknown 1	8.60	0.00000	10805	1553
6	CHLORIDE	10.10	1722.58749 ✓	522949	62547
7	NITRITE	11.19	29945.28358	6167154	455666
8	Unknown 2	12.88	0.00000	443805	18716
9	SULFATE	15.01	7310.22797 ✓	1626089	94537
10	OXALATE	15.88	1790.11926 ✓	396059	20936
11	Unknown 3	17.21	0.00000	18295324	568635
12	PHOSPHATE	20.71	2873.34010 ✓	289071	15044
13	Unknown 4	23.43	0.00000	112847	4447
14	Unknown 5	24.60	0.00000	13218	2390



## Sample Analysis Report

Sample Name : CCV 113N28C 126

Data File Name : c:\peaknet\data\009030900\_014.DXD

Method File Name : ...as15hood4\_new08090300.met

System Name : HD4-ANION\_WC80541

Date Time Collected : 3/9/09 8:06:11 PM

Calibration Date : 3/3/09 3:44:38 PM

System Operator : CE

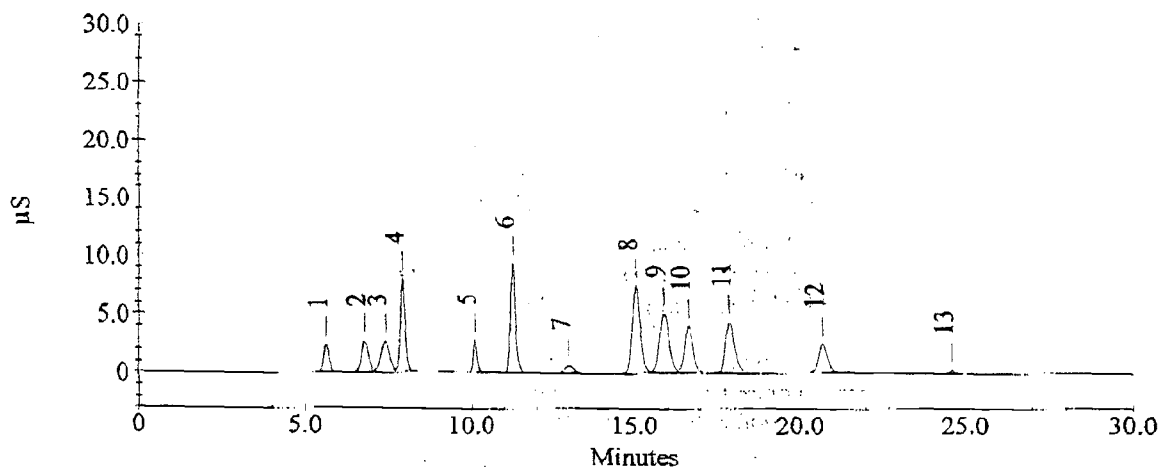
Calibration Level : 0

Dilution Factor : 1.00

### Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (µg/mL)	Peak Area	Peak Height
1	FLUORIDE	5.62	0.46363 <sup>98.02</sup>	276700	23847
2	GLYCOLATE	6.77	2.99511 <sup>100.64</sup>	399612	26509
3	ACETATE	7.39	3.80479 <sup>106.53</sup>	469919	26271
4	FORMATE	7.91	3.57233 <sup>101.15</sup>	809084	79524
5	CHLORIDE	10.11	0.68018 <sup>100.24</sup>	227616	27524
6	NITRITE	11.28	4.34105 <sup>99.27</sup>	1069810	93750
7	Unknown 1	12.99	0.00000	123221	6266
8	SULFATE	15.05	5.19273 <sup>100.97</sup>	1282368	74568
9	OXALATE	15.90	4.20041 <sup>100.24</sup>	1008488	50928
10	BROMIDE	16.64	4.39691 <sup>92.34</sup>	669932	39331
11	NITRATE	17.88	4.27095 <sup>97.84</sup>	815623	42629
12	PHOSPHATE	20.67	4.34454 <sup>99.35</sup>	486559	24850
13	Unknown 2	24.60	0.00000	15370	2543

### CCV 113N28C 126



PeakNet 5.21

Page 1 of 1

Current Date : 3/9/0  
Current Time : 20:37:03

## Sample Analysis Report

Sample Name : CCB

Data File Name : c:\peaknet\data\009030900\_015.DXD

Method File Name : ...\as15hood4\_new08090300.met

System Name : HD4-ANION\_WC80541

Date Time Collected : 3/9/09 8:38:07 PM

Calibration Date : 3/3/09 3:44:38 PM

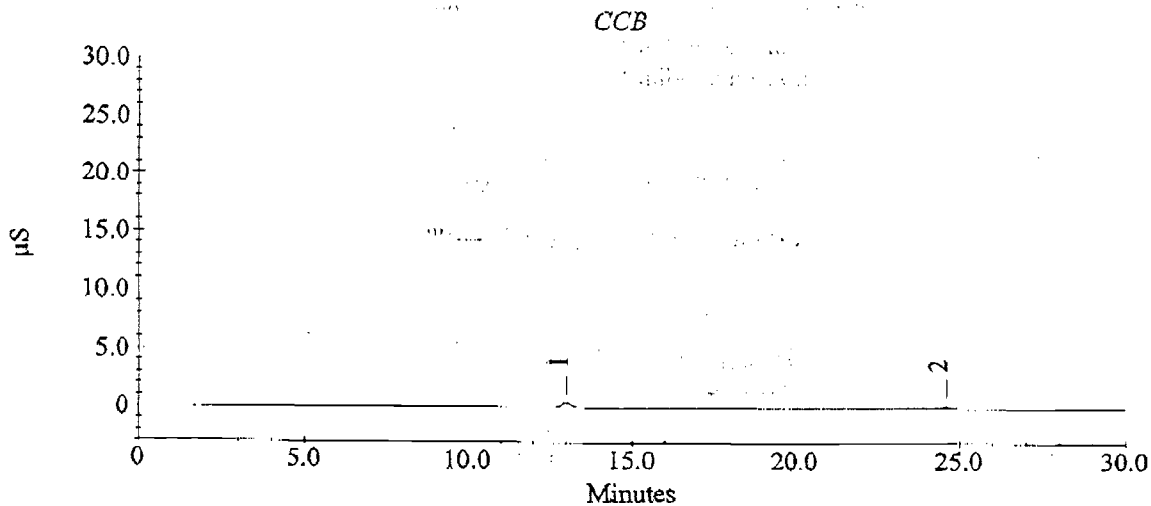
System Operator : CE

Calibration Level : 0

Dilution Factor : 1.00

### Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (µg/mL)	Peak Area	Peak Height
1	Unknown 1	13.00	0.00000	80582	4303
2	Unknown 2	24.60	0.00000	15426	2556



PeakNet 5.21

## 222-S Advanced Technologies and Laboratories

## Ion Chromatography Data Review Checklist

Worklist/Project: 13338 / AW-106 EVAP3 20090162 Check Procedure Used: ☐ LA-533-101 (Cat) ☐ LA-533-107 (846 Anions) ☒ LA-533-115 (IC6 Anions)Run Date: 3/6/09 Instrument ID: IC-6 Prep Batches Analyzed (Worklist #): N/A Prep Method: NA

Review Items	Yes	No	N/A	Comments/Samples Affected
<b>A. Calibration/Instrument Run QC</b>				
1. Instrument calibrated per procedure and at specified levels?	<input checked="" type="checkbox"/>			
2. If the Calibration date is different, has the change been recorded with the calibration record?			<input checked="" type="checkbox"/>	
3. Calibration curve correlation coefficient $\geq 0.995$ linear or $\geq 0.999$ quadratic?	<input checked="" type="checkbox"/>			
4. ICV/CCV analyzed at appropriate frequency and within control limits (Recovery: 90-110%)?	<input checked="" type="checkbox"/>			
5. ICB/CCB analyzed at required frequency and < EQL (or RL) or <5% of the lowest sample result?	<input checked="" type="checkbox"/>			
6. LLS run and within control limits? For III, recovery is mandatory to verify RL. SW-846 9056A requirement <input type="checkbox"/> 75-125% <input checked="" type="checkbox"/> 50-150%	<input checked="" type="checkbox"/>			
<b>B. Sample Results</b>				
1. Were samples with concentrations > linear range for any analyte diluted and reanalyzed?	<input checked="" type="checkbox"/>			
2. Are all reported results bracketed by in-control QC?	<input checked="" type="checkbox"/>			
3. Are there 10 or fewer samples runs between bracketed, in-control QC?	<input checked="" type="checkbox"/>			
<b>C. Preparation/Matrix QC</b>				
1. LCS/Prep Std prepared per prep batch and within control limits? Recovery: <input type="checkbox"/> 80-120% or <input type="checkbox"/> Statistical			<input checked="" type="checkbox"/>	
2. LCS Dup (Prep Std Dup) prepared per prep batch, if required, and within control limits? Recovery: <input type="checkbox"/> 80-120% or <input type="checkbox"/> Statistical; RPD: <input type="checkbox"/> $\leq 20\%$ or <input type="checkbox"/> Statistical			<input checked="" type="checkbox"/>	
3. III RLS run (when required) and within mandatory control limits (Recovery: 75-125%)?			<input checked="" type="checkbox"/>	
4. Method/Media Blank prepared per prep batch and < EQL (or RL) or <5% of the lowest sample result?	<input checked="" type="checkbox"/>			
5. Duplicate or MS Duplicate run at required frequency and within control limits? %RPD: <input checked="" type="checkbox"/> $\leq 20\%$ or <input type="checkbox"/> Client-specified	<input checked="" type="checkbox"/>			
6. MS run at required frequency and within control limit? Recovery: <input checked="" type="checkbox"/> 75-125% or <input type="checkbox"/> Client-specified	<input checked="" type="checkbox"/>			
<b>D. Other</b>				
1. Are all problems and nonconformance issues documented appropriately?	<input checked="" type="checkbox"/>			
2. Are current IDL/MDL/EQL/RL/Calibration data on file?	<input checked="" type="checkbox"/>			
3. Calculations/transcriptions checked for errors?	<input checked="" type="checkbox"/>			
4. Are all raw data complete and verified in Omni LIMS?	<input checked="" type="checkbox"/>			
5. All client/project specific requirements met (e.g., MDL, Holding time, etc.)?	<input checked="" type="checkbox"/>			
6. Date/time of analysis verified as correct?	<input checked="" type="checkbox"/>			
7. All Benchsheet(s)/Worklist(s) properly completed and included, as required?	<input checked="" type="checkbox"/>			
8. III Only: Media Blank subtracted from Sample results?			<input checked="" type="checkbox"/>	

1<sup>st</sup> Data Reviewer: KB Date: 3/11/092<sup>nd</sup> Data Reviewer: CC Date: 03/11/09QA: Debra 3-17-09

## LABCORE Completed Batch Report for Batch# 00013338

**Analyst:** Edwards, Cheryl

**Book#:** 113N28C

**Instrument:** IC-6 (SMALL ORG ACIDS)

**Method:** IC - ANIONS/SMALL ORG. ACIDS, LA-533-115 Rev/Mod J-0

**Specification:** AW106 EVAP3

**Prep Batch:** N/A

**Batch Comment:** AW 106 Instrument Run

Seq Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (UL/RL/UL)	Unit	Yield	Yield Unit	Flags
Sample Sequence 1															
1 ICV	S0903100045		0 0		Fluoride	LIQUID	.4729856	4.7473E-01			1.61E-03	ug/mL	100.37	% Recovery	
1 ICV	S0903100045		0 0		Glycolate	LIQUID	2.976	3.0445E+00			9.37E-03	ug/mL	102.3	% Recovery	
1 ICV	S0903100045		0 0		Acetate	LIQUID	3.5712	3.8312E+00			6.04E-03	ug/mL	107.28	% Recovery	
1 ICV	S0903100045		0 0		Formate	LIQUID	3.53152	3.6250E+00			4.67E-03	ug/mL	102.65	% Recovery	
1 ICV	S0903100045		0 0		Chloride	LIQUID	.678528	7.1490E-01			9.98E-03	ug/mL	105.36	% Recovery	
1 ICV	S0903100045		0 0		Nitrite	LIQUID	4.372736	4.4115E+00			0.0192	ug/mL	100.89	% Recovery	
1 ICV	S0903100045		0 0		Sulfate	LIQUID	5.142528	5.2939E+00			0.0187	ug/mL	102.94	% Recovery	
1 ICV	S0903100045		0 0		Oxalate	LIQUID	4.190208	4.2692E+00			0.0231	ug/mL	101.88	% Recovery	
1 ICV	S0903100045		0 0		Bromide	LIQUID	4.7616	4.4756E+00			0.058	ug/mL	93.994	% Recovery	
1 ICV	S0903100045		0 0		Nitrate	LIQUID	4.3648	4.3431E+00			0.0208	ug/mL	99.503	% Recovery	
1 ICV	S0903100045		0 0		Phosphate	LIQUID	4.372736	4.4567E+00			0.0167	ug/mL	101.92	% Recovery	
Sample Sequence 2															
2 ICB	S0903100046		0 0		Fluoride	LIQUID		<1.6100E-03			1.61E-03	ug/mL			
2 ICB	S0903100046		0 0		Glycolate	LIQUID		<9.3700E-03			9.37E-03	ug/mL			
2 ICB	S0903100046		0 0		Acetate	LIQUID		<6.0400E-03			6.04E-03	ug/mL			
2 ICB	S0903100046		0 0		Formate	LIQUID		<4.6700E-03			4.67E-03	ug/mL			
2 ICB	S0903100046		0 0		Chloride	LIQUID		<9.9800E-03			9.98E-03	ug/mL			
2 ICB	S0903100046		0 0		Nitrite	LIQUID		<1.9200E-02			0.0192	ug/mL			
2 ICB	S0903100046		0 0		Sulfate	LIQUID		<1.8700E-02			0.0187	ug/mL			
2 ICB	S0903100046		0 0		Oxalate	LIQUID		<2.3100E-02			0.0231	ug/mL			
2 ICB	S0903100046		0 0		Bromide	LIQUID		<5.8000E-02			0.058	ug/mL			
2 ICB	S0903100046		0 0		Nitrate	LIQUID		<2.0800E-02			0.0208	ug/mL			
2 ICB	S0903100046		0 0		Phosphate	LIQUID		<1.6700E-02			0.0167	ug/mL			
Sample Sequence 3															
3 LLS	S0903100047		0 0		Fluoride	LIQUID	.029651	2.48E-02			1.61E-03	ug/mL	83.538	% Recovery	
3 LLS	S0903100047		0 0		Glycolate	LIQUID	.1865625	1.56E-01			9.37E-03	ug/mL	83.682	% Recovery	
3 LLS	S0903100047		0 0		Acetate	LIQUID	.223875	2.04E-01			6.04E-03	ug/mL	91.346	% Recovery	
3 LLS	S0903100047		0 0		Formate	LIQUID	.2213875	2.15E-01			4.67E-03	ug/mL	97.088	% Recovery	
3 LLS	S0903100047		0 0		Chloride	LIQUID	.04253625	4.11E-02			9.98E-03	ug/mL	96.647	% Recovery	
3 LLS	S0903100047		0 0		Nitrite	LIQUID	.2741225	2.60E-01			0.0192	ug/mL	94.939	% Recovery	
3 LLS	S0903100047		0 0		Sulfate	LIQUID	.32238	3.03E-01			0.0187	ug/mL	93.855	% Recovery	

Units shown for QC (BLK/BKG) may not reflect the actual units.

RPP-RPT-40709 Rev. 1

## LABCORE Completed Batch Report for Batch# 00013338

Seq Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
3 LLS	S0903100047		0 0		Oxalate	LIQUID	.26268	2.32E-01			0.0231	ug/mL	88.183	% Recovery	
3 LLS	S0903100047		0 0		Bromide	LIQUID	.2985	2.17E-01			0.058	ug/mL	72.854	% Recovery	
3 LLS	S0903100047		0 0		Nitrate	LIQUID	.273625	2.35E-01			0.0208	ug/mL	85.942	% Recovery	
3 LLS	S0903100047		0 0		Phosphate	LIQUID	.2741225	2.44E-01			0.0167	ug/mL	89.175	% Recovery	
Sample Sequence 4															
4 SAMPLE	S09T001751		0 0		Fluoride	LIQUID	N/A	<1.6100E-03			1.61E-03	ug/mL			U
4 SAMPLE	S09T001751		0 0		Glycolate	LIQUID	N/A	<9.3700E-03			9.37E-03	ug/mL			U
4 SAMPLE	S09T001751		0 0		Acetate	LIQUID	N/A	<6.0400E-03			6.04E-03	ug/mL			U
4 SAMPLE	S09T001751		0 0		Formate	LIQUID	N/A	<4.6700E-03			4.67E-03	ug/mL			U
4 SAMPLE	S09T001751		0 0		Chloride	LIQUID	N/A	3.2540E-02			9.98E-03	ug/mL			J
4 SAMPLE	S09T001751		0 0		Nitrite	LIQUID	N/A	<1.9200E-02			0.0192	ug/mL			U
4 SAMPLE	S09T001751		0 0		Sulfate	LIQUID	N/A	<1.8700E-02			0.0187	ug/mL			U
4 SAMPLE	S09T001751		0 0		Oxalate	LIQUID	N/A	<2.3100E-02			0.0231	ug/mL			U
4 SAMPLE	S09T001751		0 0		Bromide	LIQUID	N/A	<5.8000E-02			0.058	ug/mL			U
4 SAMPLE	S09T001751		0 0		Nitrate	LIQUID	N/A	<2.0800E-02			0.0208	ug/mL			U
4 SAMPLE	S09T001751		0 0		Phosphate	LIQUID	N/A	<1.6700E-02			0.0167	ug/mL			U
Sample Sequence 5															
5 SAMPLE	S09T001762		0 0		Fluoride	LIQUID	N/A	<1.6100E-03			1.61E-03	ug/mL			U
5 SAMPLE	S09T001762		0 0		Glycolate	LIQUID	N/A	<9.3700E-03			9.37E-03	ug/mL			U
5 SAMPLE	S09T001762		0 0		Acetate	LIQUID	N/A	<6.0400E-03			6.04E-03	ug/mL			U
5 SAMPLE	S09T001762		0 0		Formate	LIQUID	N/A	5.7000E-03			4.67E-03	ug/mL			J
5 SAMPLE	S09T001762		0 0		Chloride	LIQUID	N/A	8.0850E-02			9.98E-03	ug/mL			J
5 SAMPLE	S09T001762		0 0		Nitrite	LIQUID	N/A	<1.9200E-02			0.0192	ug/mL			U
5 SAMPLE	S09T001762		0 0		Sulfate	LIQUID	N/A	<1.8700E-02			0.0187	ug/mL			U
5 SAMPLE	S09T001762		0 0		Oxalate	LIQUID	N/A	<2.3100E-02			0.0231	ug/mL			U
5 SAMPLE	S09T001762		0 0		Bromide	LIQUID	N/A	<5.8000E-02			0.058	ug/mL			U
5 SAMPLE	S09T001762		0 0		Nitrate	LIQUID	N/A	9.5120E-02			0.0208	ug/mL			J
5 SAMPLE	S09T001762		0 0		Phosphate	LIQUID	N/A	<1.6700E-02			0.0167	ug/mL			U
Sample Sequence 6															
6 SAMPLE	S09T001783		0 0		Nitrite	LIQUID	N/A	3.3612E+04			195.86	ug/mL			
6 SAMPLE	S09T001783		0 0		Nitrate	LIQUID	N/A	1.1529E+05			212.18	ug/mL			
Sample Sequence 7															
7 SAMPLE	S09T001772		0 0		Nitrite	LIQUID	N/A	3.2143E+04			195.86	ug/mL			
7 SAMPLE	S09T001772		0 0		Nitrate	LIQUID	N/A	1.0993E+05			212.18	ug/mL			
Sample Sequence 8															
8 DUP	S0903100048	S09T001772	0 0		Nitrite	LIQUID	3.2143E+04	3.2728E+04			195.86	ug/mL	1.8028	% RPD	
8 DUP	S0903100048	S09T001772	0 0		Nitrate	LIQUID	1.0993E+05	1.1244E+05			212.18	ug/mL	2.2596	% RPD	
Sample Sequence 9															
9 SPK-IC	S0903100049	S09T001772	0 0		Nitrite	LIQUID	551	8.6964E+04			0.0192	ug/mL	98.508	% Recovery	
9 SPK-IC	S0903100049	S09T001772	0 0		Nitrate	LIQUID	550	1.6421E+05			0.0208	ug/mL	97.712	% Recovery	

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## LABCORE Completed Batch Report for Batch# 00013338

Seq Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RI/UL)	Unit	Yield	Yield Unit	Flags
Sample Sequence 10															
10 CCV	S0903100050		0	0	Fluoride	LIQUID	.4729856	4.7405E-01			1.61E-03	ug/mL	100.23	% Recovery	
10 CCV	S0903100050		0	0	Glycolate	LIQUID	2.976	3.0380E+00			9.37E-03	ug/mL	102.08	% Recovery	
10 CCV	S0903100050		0	0	Acetate	LIQUID	3.5712	3.8283E+00			6.04E-03	ug/mL	107.2	% Recovery	
10 CCV	S0903100050		0	0	Formate	LIQUID	3.53152	3.6101E+00			4.67E-03	ug/mL	102.23	% Recovery	
10 CCV	S0903100050		0	0	Chloride	LIQUID	.678528	7.1044E-01			9.98E-03	ug/mL	104.7	% Recovery	
10 CCV	S0903100050		0	0	Nitrite	LIQUID	4.372736	4.3915E+00			0.0192	ug/mL	100.43	% Recovery	
10 CCV	S0903100050		0	0	Sulfate	LIQUID	5.142528	5.2680E+00			0.0187	ug/mL	102.44	% Recovery	
10 CCV	S0903100050		0	0	Oxalate	LIQUID	4.190208	4.2556E+00			0.0231	ug/mL	101.56	% Recovery	
10 CCV	S0903100050		0	0	Bromide	LIQUID	4.7616	4.4456E+00			0.058	ug/mL	93.363	% Recovery	
10 CCV	S0903100050		0	0	Nitrate	LIQUID	4.3648	4.3128E+00			0.0208	ug/mL	98.808	% Recovery	
10 CCV	S0903100050		0	0	Phosphate	LIQUID	4.372736	4.4274E+00			0.0167	ug/mL	101.25	% Recovery	
Sample Sequence 11															
11 CCB	S0903100051		0	0	Fluoride	LIQUID		<1.6100E-03			1.61E-03	ug/mL			
11 CCB	S0903100051		0	0	Glycolate	LIQUID		<9.3700E-03			9.37E-03	ug/mL			
11 CCB	S0903100051		0	0	Acetate	LIQUID		<6.0400E-03			6.04E-03	ug/mL			
11 CCB	S0903100051		0	0	Formate	LIQUID		<4.6700E-03			4.67E-03	ug/mL			
11 CCB	S0903100051		0	0	Chloride	LIQUID		<9.9800E-03			9.98E-03	ug/mL			
11 CCB	S0903100051		0	0	Nitrite	LIQUID		<1.9200E-02			0.0192	ug/mL			
11 CCB	S0903100051		0	0	Sulfate	LIQUID		<1.8700E-02			0.0187	ug/mL			
11 CCB	S0903100051		0	0	Oxalate	LIQUID		<2.3100E-02			0.0231	ug/mL			
11 CCB	S0903100051		0	0	Bromide	LIQUID		<5.8000E-02			0.058	ug/mL			
11 CCB	S0903100051		0	0	Nitrate	LIQUID		<2.0800E-02			0.0208	ug/mL			
11 CCB	S0903100051		0	0	Phosphate	LIQUID		<1.6700E-02			0.0167	ug/mL			

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## LABCORE Completed Batch Report for Batch# 00013338

### Comments Section:

Comments for sample: S0903100045, test: IC - ANIONS/SMALL ORG. ACIDS

r:\PKNTTR~1\090306~1\009030600\_005.DXD

Comments for sample: S0903100050, test: IC - ANIONS/SMALL ORG. ACIDS

r:\PKNTTR~1\090306~1\009030600\_016.DXD

Comments for sample: S0903100051, test: IC - ANIONS/SMALL ORG. ACIDS

r:\PKNTTR~1\090306~1\009030600\_018.DXD

Comments for sample: S0903100046, test: IC - ANIONS/SMALL ORG. ACIDS

r:\PKNTTR~1\090306~1\009030600\_006.DXD

Comments for sample: S0903100047, test: IC - ANIONS/SMALL ORG. ACIDS

r:\PKNTTR~1\090306~1\009030600\_007.DXD

Comments for sample: S09T001751, test: IC - ANIONS/SMALL ORG. ACIDS

r:\PKNTTR~1\090306~1\009030600\_008.DXD

Comments for sample: S09T001762, test: IC - ANIONS/SMALL ORG. ACIDS

r:\PKNTTR~1\090306~1\009030600\_009.DXD

304 Comments for sample: S09T001783, test: IC - ANIONS/SMALL ORG. ACIDS

r:\PKNTTR~1\090306~1\009030600\_010.DXD

Comments for sample: S09T001772, test: IC - ANIONS/SMALL ORG. ACIDS

r:\PKNTTR~1\090306~1\009030600\_013.DXD

Comments for sample: S0903100048, test: IC - ANIONS/SMALL ORG. ACIDS

r:\PKNTTR~1\090306~1\009030600\_014.DXD

Comments for sample: S0903100049, test: IC - ANIONS/SMALL ORG. ACIDS

r:\PKNTTR~1\090306~1\009030600\_015.DXD

Data Flagger Status:

Flagging Completed

**Final Page for Batch# 00013338**

  
Reviewer Signature

  
Date